

THE PHONOGRAM.

THE OFFICIAL ORGAN OF THE PHONOGRAPH COMPANIES OF THE UNITED STATES.

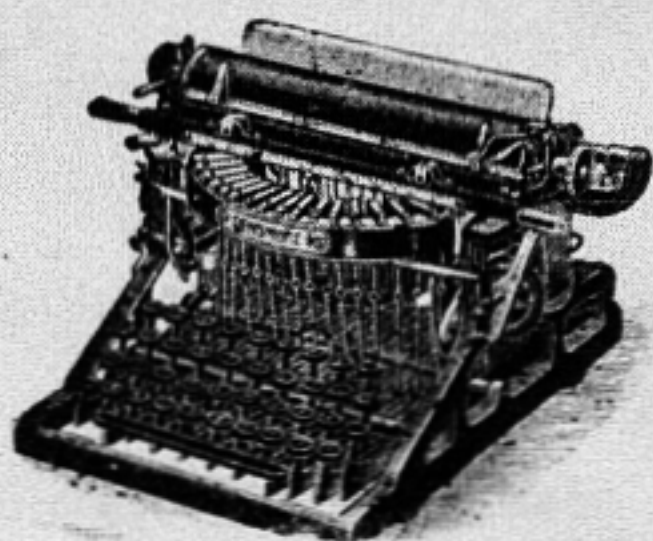
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TABLE OF CONTENTS.

	PAGE.		PAGE.
Edison's Phonograph—Its Present and Future.....	238	Queries.....	262
Electrical Patents.....	250	Personal.....	260
Electricity Applied to the Microscope.....	257	Phono Chat.....	263
Experiments with High Tension Electric Currents... 258		Practical Suggestions.....	251
Correspondence.....	261	Progress of Electric Science.....	239
Organization and Progress of Phonograph Com- panies of the United States.....	240	The Evolution of the Typewriter.....	259
Our Holiday Number.....	237	The Exhibition Parlors of the Ohio Phonograph Co.. 248	
Latest Type of the Reynier Elastic Accumulator.....	256	The Phonograph in Clinics.....	254
		The Storage Battery Question.....	255



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627 E Street, N. W., Washington, D. C.



A MAGAZINE devoted to all interests connected with the recording of sound, the reproduction and preservation of speech, the Telephone, the Typewriter, and the progress of Electricity.

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ADVERTISEMENTS.

THE PHONOGRAM, having special facilities in its circulation through the vast commercial system occupied by the Phonograph, Telephone, and other Electrical Devices, presents an exceptionally valuable advertising medium. The rates are reasonable and will be furnished on application.

CORRESPONDENCE

relating to the Phonograph, Typewriter, or Electricity, in any of their practical applications, is cordially invited, and the coöperation of all electrical thinkers and workers earnestly desired. Clear, concise, well-written articles are especially welcome; and communications, views, news items, local newspaper clippings, or any information likely to interest electricians, will be thankfully received and cheerfully acknowledged.

Our Holiday Number.

The Holiday number of THE PHONOGRAM is one of the most interesting as well as one of the handsomest publications of the season.

In addition to all the regular departments of the magazine, our pages are amplified to introduce an elaborate article on the history of the phonograph enterprise from the formation of the parent company up to the present date. Through the courtesy of Mr. Wm. K. Dickson, of the Edison Laboratory, we are enabled to give a handsome portrait of Mr. Thomas A. Edison, inventor of the phonograph, and we also present to our readers

likenesses of Mr. Jesse H. Lippincott, president, and Mr. Thomas R. Lombard, vice-president of the North American Phonograph Co., as also the president, secretary and general manager of each of the large sub-companies acting under the authority of the North American Phonograph Co., thus representing at once one of the most distinguished and able corps of business men to be found in this country. We have spared neither labor nor expense to obtain these cuts for our readers, desiring to demonstrate the growth of this important industry, its ramifications and what its future will be under the guidance of so vast and competent an administration.

The wide adoption of a popular invention and the eagerness of inventors to make improvements is also illustrated in the history of this enterprise. Several inventors are treading upon the same line of invention, but as yet the phonograph stands unrivaled as the "King of instruments," imbued with what no other instrument has ever yet attained, memory and speech, "an eternal echo which petrifies and preserves impulse;" and none of its competitors in the field have been enabled to overreach it in excellence.

We owe its introduction to this able and dignified body representing the bone and sinew of American industry. The evidence of their brains and skill in placing it upon the market is having its reward in a large increase of business and a most favorable outlook for the New Year. These groups of intelligent men call for more than a passing glance, for they constitute the mainspring of one of the greatest industries that has ever seen the light of day, and which, in the near future, will expand into gigantic proportions.

Edison's Phonograph—Its Present and Future. What Next?

Late improvements on this marvelous invention have brought it very near the point of perfection. It is much more simple, it is automatic in adjustment, efficient in action and easy of manipulation.

An author can dictate chapter after chapter to this impressible auditor and the amanuensis can put these into printed form with little trouble; thus one cylinder may be made to take scores of chapters and reproduce them for the press.

THE PHONOGRAM has given in its previous issues, one by one, the different points of value in this wonderful instrument, and now in furnishing a history of the enterprise we desire to recapitulate its capabilities.

1st. It has come as an ever ready and invaluable assistant in dispatching correspondence. It is not used in lieu of, but in connection with the stenographer, as his best friend.

2d. It has come to free the student from the laborious task of learning an intricate system of hieroglyphics, for it is *not now* absolutely necessary that a typewriter operator should be also a stenographer the rapid transcription from the phonograph answering all purposes, as the phonograph is to-day a simple, reliable and necessary adjunct to office equipment.

3d. No experience is necessary to transcribe at once all that has been dictated.

4th. It has come to bring melody to the sick and blind, to the toiler who arrests his labors to listen to the sweet strains of some famous singer or the fine melody of some noted band of musicians.

5th. It has come to reproduce the orations of our celebrated speakers, the recitations of skilled elocutionists, and the fine effects of dramatic art.

6th. It has come as the ideal teacher of languages, since it repeats with marvelous accuracy every word spoken into it, and records the finest variations and shades of sound with absolute precision.

7th. It has come to make the average typewriter the equal of the skillful stenographer.

8th. It has come to record the lisping prattle of childhood, the songs of the maiden, the laughter of the matron and the prayers of the dying.

9th. It is a human photograph, beginning

to inscribe your words from the cradle and following you to the grave.

10th. It has come to bring back the voices of the dead.

The phonograph is also now used to receive messages on the telephone, and one of our able contemporaries in the electrical field says, "Ten minutes after I hang up the telephone in Buffalo or Washington the stenographer is reading his 'overflow' notes into the phonograph for distribution, and the mail, dictated over the wire from two hundred to five hundred miles long in the morning, goes out of our office in the evening just as though I had been there all day."

Edison's phonograph has so many uses, and is so delightful for both home and office, that the time is near when it will be as generally adopted as is the sewing machine. What we have here related is not a dream nor a future possibility, but that which is done each day, and as the advantages of modern electrical facilities are more appreciated, the phonograph will become more and more a recognized factor in facilitating labor.

Improvements in Electric Railways.

In the last issue of THE PHONOGRAM we stated that the results of Mr. Edison's untiring researches in the field of electrical science were continually being manifested in new forms, notably with regard to the construction of electric railways. Much discussion has been evoked by this declaration and contradictory rumors set afloat, to the effect that the progress was more imaginary than real.

We are pleased to be able to announce from authoritative sources the actual and important advancement attained in this work, which we shall now proceed to lay before our readers in succinct shape.

It seems that the president of the Edison General Electric Co. requested Mr. Edison, some two years since, to devise a street railway system in which the construction of the conduit used should not exceed in cost that of cable roads, where all appliances and details should be of the simplest, and so arranged that it might be employed in large cities where the trolley would not be permitted.

This was difficult to do, and we have not space to describe his methods in detail; but it was necessary to devise apparatus which should be able to pick up with absolute cer-

tainty one thousand ampères of current through two inches of mud, if necessary. This difficulty was overcome and another arose, as to obtaining a joint between contiguous rails, such as would permit of the passage of several thousand ampères without introducing undue resistance. Having likewise mastered the latter, an experimental track was built near Mr. Edison's laboratory, and the railway is now working to his complete satisfaction.

Many objections were raised, many adverse prophecies uttered in connection with the experiment; but so far as present experience goes, the success of the system is assured. Its cost is estimated by Mr. Edison to vary between \$30,000 and \$100,000 per mile of double track, not including cost of stations. It is, of course, only applicable to large cities, but it can be shown that with the traffic afforded by these, the system can be applied with far greater economy than a cable road. The cost of operation of the electric road is also much below that of the cable. Another benefit resulting from its adoption would be, that not much tearing up of the streets would be required, and the existing roads could be converted in a short time to the electric system.

Estimates are now being made for converting one of the largest street railways of New York over to the electric system.

Progress of Electric Science.

Inasmuch as the development of the science of electricity in this century, especially within the last decade, is largely due to American genius and devotion, there seems to be an especial fitness in the projected measure of holding the Electrical Congress during the existence of the Columbian Exposition at Chicago in 1893. The whole world of electric science will then pour its light upon one point, and out of this concentration of intellectual luminosity, it is to be expected that unusual results will ensue.

The very suggestion and hope of an Electrical Congress under such auspices will impel new efforts and inspire more ardent exertions in the cause. The zeal of the American electrical engineers is most commendable, and will bear fruit worthy of its endeavors.

THE PHONOGRAM has in a previous article mentioned some of the important points de-

manding consideration from a body such as this will undoubtedly be; and the matter of units and standards was one principally alluded to. We are glad to see that the names of Dr. E. L. Nicholls, Professor Alexander Graham Bell, Mr. Nikola Tesla and Mr. Ludwig Gutman are prominent among those on the lists of committees.

It is also a pleasure to note that at a meeting of the World's Fair Electric Committee, held in Chicago, in October it was decided to have the names of famous electric scientists of all ages and countries placed over the Electric Building at the Exposition. Some of these were Franklin, Galvani, Ampère, Faraday, Morse, Volta, Henry, Arago, etc. It is likewise matter of congratulation that the names of Messrs. Anthony, Hering and Kennelly have been placed on the committee to formulate a programme for the proceedings of the Congress.

Ever-Increasing Usefulness of the Phonograph.

The ends served by the phonograph increase in number every day. We receive from the able and alert manager of the Chicago Central Phonograph Co., Mr. W. S. Gray, a copy of the *Chicago Tribune* containing a notice of a new application of this instrument.

The daughter of Rabbi Browne, of a Cleveland high school, suggests that the phonograph may be used to teach the blind to read. Rabbi Browne wrote to Mr. Edison concerning it, and he wrote in reply that although the idea was new to him it was practicable. Mr. Edison is now experimenting in order to reduce the size of the cylinders and yet increase their capacity. The recording needle is reduced to half the size of the present one. The screw is made smaller, so as to increase the revolutions of the cylinder. Special machines could be constructed by which the number of words can be increased to from 4,000 to 5,000. The cylinders are so durable that one was made to repeat its words three thousand (3,000) times.

Arrived from France.

The model of the celebrated electric battery constructed by the late Mr. Emile Reynier, of Paris, for his elastic accumulator, reached the office of THE PHONOGRAM this week, and may be seen by all who desire to avail themselves of an opportunity to examine this excellent apparatus.



ORGANIZATION AND PROGRESS OF
THE
PHONOGRAPH COMPANIES OF THE UNITED STATES.

THE NORTH AMERICAN PHONOGRAPH Co., owner of the patents of Thomas A. Edison, for recording, perpetuating and reproducing articulate speech and other sounds, and agent for the sole licensee of the American Graphophone Company, was duly organized under the laws of the State of New Jersey, on the 14th day of July, 1888.

The officers of the company are: Mr. Jesse H. Lippincott, president; Mr. Thomas R. Lombard, vice-president; Mr. C. Walcutt, secretary, and Mr. M. W. Nolan, treasurer, with headquarters at No. 10 Wall street, New York, and 14 and 16 Morris street, Jersey City.

The North American Phonograph Company leased territorial rights for the rental and sale of phonographs, to thirty-two sub-companies, besides forming several agencies, and the business conducted by this great head and its satellites now extends from Maine to California, embracing every State in the Union and also Canada.

The same general system is followed by all the sub-companies and agencies; supplies, machines, etc., being obtained from the parent company upon requisition.

The plan of exclusively renting machines, which was first adopted by the North American Phonograph Company, has been abandoned, and now customers in most of the States and Territories have the option of either purchasing outright under certain restrictions, or renting machines, and since this plan has gone into operation, a marked improvement in the business has taken place, and machines are daily coming more and more into use and favor with the general public.

THE NEW YORK PHONOGRAPH Co. is a consolidation of two companies controlling different portions of the State of New York, but controlling between them the whole State. The Metropolitan Phonograph Co. was one of these companies, and had exclusive control of New York City and the five adjoining counties. The New York Phonograph Co. was the title of the other company, and

it controlled the balance of the State. For many reasons it appeared desirable that these interests should be consolidated, and this was done in October of 1890, under the name of New York Phonograph Co. The capital stock of this company is \$2,500,000, full paid and non-assessable. The board of trustees is as follows: John P. Haines, president; John D. Cheever, vice-president; Richard Townley Haines, secretary and treasurer; Noah Davis, W. Seward Webb, William Fahnestock, Chas. A. Cheever.

The very attractive offices of the company are located at 257 Fifth avenue, New York City. It is from this address that the greater portion of the business of the company is transacted, and thence through agencies distributed in various parts of the State. The largest and most progressive agency is in the City of Buffalo. Other agencies are located in Rochester, Syracuse, Utica, Albany, Elmira, Nyack, Binghamton, etc.

The business of the company is divided into several departments. First comes the commercial side of the enterprise, which consists in renting machines for use in business offices to receive the dictation of letters or other matters, afterward to be transcribed by the typewriter operators or amanuenses. The public and young people about to study stenography are beginning to appreciate that a great saving in time and money can be accomplished by the use of these instruments.

Next comes the amusement side of the industry, and it is most interesting to all classes and conditions of the human race, from the millionaire in his opera box to the bootblack with his grimy hands and his harmonica—all love music. The phonograph is a faithful recorder and reproducer of music of all kinds and degrees. The reproduction of phonograph music through the metal horn naturally carries with it certain vibrations from the horn itself, which make the music less natural

in tone than it should be; but not so when listened to through the small rubber ear tubes. Records of the human voice, carefully made, are as perfectly reproduced through the rubber tubes as though the singer were present at the time. The voices of our friends as well as the songs of the best singers of the age can thus be stored up and repeated at will to the great and endless enjoyment of anyone possessing one of these marvelous instruments.

Another interesting and profitable use to which this wonder of the age is put is the automatic, or nickel-in-the-slot device for reproducing music and other records in public places. These machines, in attractive oak or mahogany cases, with beveled plate glass tops and sides, are to be found in nearly all the principal hotels, cafés and places of public resort.

The New York Phonograph Co. also make public and private exhibitions of the phonograph a feature of their business. A well-trained corps of exhibitors are ready at all times to give phonograph exhibitions at private residences, public institutions, dinners, fairs, and on all other occasions. A moderate charge is made for these entertaining exhibitions, and families as well as invalids can now be regaled at their houses with choice selections from the operas, as well as with songs from the most celebrated singers.

THE COLUMBIA PHONOGRAPH Co., of Maryland, Delaware, and the District of Columbia, has its principal office at Washington, D. C., and agencies in Baltimore, Wilmington, and a number of smaller points. The officers are Edward D. Easton, president; William Herbert Smith, vice-president and treasurer; R. F. Cromelin, secretary. Mr. Easton and Mr. Cromelin give their entire time to the work.

The company was organized on January 15, 1889. It paid, on June 18, 1889, the first dividend ever earned by a talking

machine company. Since then five dividends have been paid, the last about sixty days ago.

Every field of usefulness for talking-machines has been developed with the greatest possible rapidity. The commercial phonograph has been pressed with vigor, and in Washington more machines are used for business purposes than in any other city in the world. Phonographs are found in every department of the United States Government, where they have superseded shorthand writers. During a single session of Congress about sixty machines were used by senators, representatives, and other officials employed in and about the capitol.

The Columbia Company manufactures musical records of all kinds, the specialties being records by the United States Marine Band and John Y. Atlee's artistic whistling. These records have gone into every State and Territory in the Union, and are known wherever the phonograph is known.

Especial attention has been paid to the teaching of languages by the phonograph, and other companies have been equipped with books and language cylinders, and started at work on this most promising branch of the business.

One hundred and forty automatic nickel-in-the slot phonographs are in operation, principally in Washington and Baltimore.

The Columbia Company distributes not less than five hundred copies of *THE PHONOGRAM* per month among its subscribers, and persons interested in talking-machines; and regards *THE PHONOGRAM* as of the utmost educational value.

The practical experience of the officers with talking-machines dates back more than a year before the organization of the company.

THE WESTERN PENNSYLVANIA PHONOGRAPH Co. was organized at Pittsburgh in December, 1888, with P. C. Knox, Esq., president; L. S. Clarke, vice-presi-

dent; F. L. Stephenson, treasurer, and J. R. Friend, secretary. Under their management, the company entered upon a prosperous career, and a large number of phonographs and phonograph-graphophones were placed. The instruments, of course, met with the same opposition that confronted them in other States, which, although unorganized, was very effective, namely, the stenographers. A number of the instruments were kept in practical use, and now that the stenographers are commencing to understand the value of the machine to them, their opposition is on the wane, and the phonograph is being looked upon in the same light as the mimeograph and the typewriter, a valuable means of disposing of a hard day's work.

The outlook is very encouraging, and it is believed that one of the largest concerns in Pittsburgh will use the phonograph at an early date. The territory is being worked pretty well, and the agents are making considerable progress in placing phonographs.

The company has also put out quite a number of automatic nickel-in-the-slot machines in the larger cities. The attachment in use is the invention of Mr. L. S. Clarke.

At the last meeting of the stockholders, the following officers and board of directors were elected: George B. Motheral, president; L. S. Clarke, vice-president; F. L. Stephenson, treasurer; Henry F. Gilg, secretary. Directors, Messrs. P. C. Knox, George I. Whitney, L. H. Williams, L. S. Clarke, J. H. Friend, H. L. Childs and George B. Motheral.

The company met with a great misfortune in the loss of Mr. L. H. Williams, one of the most active phonograph men in the country, who died in May last.

THE NEW ENGLAND PHONOGRAPH Co. was organized October 12, 1888, under the laws of the State of Maine, with a capital of \$2,000,000.

It is at present governed by a board of

thirteen directors, of whom the following are its present officers :

President, Gen. A. P. Martin, of Boston ; vice-president, A. Foster Higgins, of New York ; treasurer, Chas. E. Powers, of Boston ; secretary, John B. Gleason, of New York ; corporation clerk, George L. Rogers, of Gardiner, Maine ; general manager, Augustus N. Sampson, of Boston, Mass.

The company has been doing business actively since the early part of May, 1889, when it located its offices in Boylston Building, corner of Boylston and Washington streets, where it has since remained, although it has changed from one location to another in the building, until it now occupies a very fine suite of rooms at the top of the building on the sixth floor, admirably adapted for the purpose of phonographic business.

The company has been successful, perhaps to as large a degree, as any other company in the business. It has since the first of September, been selling phonographs under the direction of the North American Company, and has sold upwards of a hundred machines already. The rental system has been carried out and a large number of machines are under rental, over two hundred and fifty, to various parties in commercial enterprises. Also has one hundred automatic machines under charge of Mr. Charles L. Marshall out in various sections of the territory, and which will be largely increased during the coming year.

The outlook for the New England Company is most flattering, the era of pioneering has past, and it is now upon the road to substantial success.

This company makes a specialty of band records and musical selections, making what are considered the very best musical records offered to the public.

THE OHIO PHONOGRAPH Co. was organized November 30, 1888, under the laws of Ohio. Its principal office is at No.

220 Walnut street, Cincinnati, and it has also an office at No. 122 Euclid avenue, Cleveland. Mr. James L. Andem, its president, also acts as general manager of the company, with headquarters at Cincinnati, and its Cleveland office is under the management of Mr. Arthur E. Smith. In addition to its business offices it has exhibition parlors in the arcades of Cincinnati and Cleveland, as illustrated and described in the pages of this magazine, and it has made a specialty of the automatic phonograph in developing its territory, and probably has been as successful as any other local company in this branch of its business.

THE LOUISIANA PHONOGRAPH Co. was the last State company incorporated, its charter being granted March 7, 1891, and active work beginning immediately after.

Mr. F. E. Clarkson was the first general manager, leaving a similar position in the Georgia Phonograph Company to take charge of the new work. Hardly, however, had he assumed control, when he was taken dangerously ill, and died in less than a month from the time of his arrival in New Orleans. Mr. Clarkson was at once succeeded by Mr. Hugh R. Conyngton, secretary of the company, who has since been in charge.

The officers of the company are : H. T. Howard, president ; H. Lee Sellers, vice-president ; Hugh R. Conyngton, secretary and treasurer.

From its position as the last company organized, the Louisiana Company has been enabled to profit from the experience of the older companies, and to avoid the errors and misfortunes inevitable to the development of an entirely new business, and in consequence, has been successful and prosperous from its organization.

The attention of the company was first turned to the social and exhibition uses of the machines, and as the first step in this

direction, the automatic phonograph was introduced to the New Orleans public.

These machines are remarkably successful. Great care was taken in the selection of music, much judgment was used in placing machines, and the most watchful care exercised in keeping things in a satisfactory condition. An inspector was assigned to every ten machines, who was required to devote his full time to this limited number, and was held responsible for their condition and success.

Under this arrangement, the machines have been unusually profitable, and it is quite probable that this company has the largest sustained receipts from any one automatic machine in the country. The most successful machine took in over one thousand dollars (\$1,000) in the first two months. The lowest receipts of any day for that period was ten dollars and ninety cents (\$10.90) and the highest was twenty-one dollars and forty-five cents (\$21.45). While these figures, of course, have not been maintained, the machines are still popular and profitable, and show no signs of further falling off in receipts.

Outside of New Orleans, the policy of leasing exhibition machines, with restricted territory, has been pursued, and the phonograph has been placed in almost every part of the State. They are usually placed with the different merchants of separate localities. In almost all of these instances the phonograph has been very successful and profitable.

At the present time, with the revival of business in the city, the company is engaged in pushing the phonograph for business purposes. This phase of the business is under the immediate direction of Mr. H. Lee Sellers, Vice-President of the company, whose efforts are meeting with the most gratifying success.

While the number of machines placed is not large, they are all in daily and successful use in the offices of leading business houses of the city, and cannot fail in

securing the proper recognition of the claims of the phonograph as a practical business necessity.

The Louisiana company has convenient and comfortable offices in the business heart of the city, in Rooms 26 and 27 Equitable Building. The music ware-rooms and shops are located about three squares distant, at No. 109 Baronne street. Here the company occupies an entire three-story brick building. The shops are located on the ground floor, and are unusually well equipped with tools and first-class workmen.

As the distance to New York is so great as to render it unadvisable to return machines there for repairs or renovation, almost all work of that nature is done at the company's shops. Back of the shops are located the warerooms, and above, are the music, record and shipping rooms.

The company is making a large amount of musical records, and some of its specialties are unusually popular. "Brother Rashmus' Sermons" and "Dixie as Rendered in the South" are good examples of this kind.

THE TEXAS PHONOGRAPH CO. was organized in the summer of 1889, but did not begin active work until the fall of that year.

Its general offices are located in Galveston, Texas. Its officers are as follows: H. Lee Sellers, President; Thos. Conyngton, General Manager; Hugh R. Conyngton, Secretary and Treasurer.

THE TEXAS CO. has worked under many difficulties and disadvantages, the principal of which, are its distance from New York, making it difficult and expensive to secure supplies, and the vast expanse of thinly settled country comprising its territory. In some cases, phonographs have been placed by this company at a distance of eight hundred miles from each other, and the expense and difficulty of maintaining machines at such distances can easily be imagined.

For various other reasons, the Texas

phonograph company has not met with as great success as some of the other companies, one of which has been the continued and unavoidable absence of its general manager, Mr. Thos. Conyngton. Lately however, Mr. Conyngton has been at his post and a vigorous campaign has been inaugurated, and from the present prospects, the company will soon be on a substantial and prosperous basis.

THE KENTUCKY PHONOGRAPH CO. commenced business April 6th 1889. For many months the company labored under difficulties contingent to a new enterprise. Much capital was wasted in costly improvements before the present management were elected as executive officers. The present officers are: R. C. Kinkead, president; L. Leonard, vice-president, and Geo. W. Grant, secretary and treasurer. This company takes considerable pride in the fact that since July 1st, 1890, they have been known as a conservative company, maintaining a high credit with the parent company and drawing on their reserve only for additions to the establishment of a permanent plant. They have been fortunate in having efficient and faithful employes. No changes whatever have been made in the last eighteen months. This company say their patrons return an unqualified indorsement of the phonograph; but add, "We have yet to receive a satisfactory approval of any storage or primary battery; we therefore watch with great interest the advent of the coming storage battery."

THE FLORIDA PHONOGRAPH CO. was organized in the summer of 1889, by Messrs. John L. Ingliss, who is also the President of the Georgia Phonograph Company; H. T. Baya, John L. Marvin, C. B. Rogers, C. H. Smith, E. A. Champlain, John F. Dunn, J. L. Martin and Chas. A. Cheever, with its headquarters at Jacksonville. The present officers are John L. Ingliss, president; H. T. Baya, vice-president, and John L. Marvin, secre-

tary and treasurer. Business commenced at once with L. B. Plummer as general manager. Within a few months Mr. Plummer resigned and J. P. Clarkson was put in charge for several months. After Mr. Clarkson left, T. Foster Gaines was chosen superintendent of the company, which he remained until last May, 1891, when he resigned and was succeeded by Lee R. Bigelow.

The capital stock of the company is \$75,000. While the company has never yet met with any marked success, owing to the sparsity of large towns, and while it was disastrously burned out in a fire which occurred August 18th last, in which it lost its entire stock of supplies, besides office furniture, fixtures, etc., it has gone right ahead with renewed vim, has furnished temporary offices at 26½ Newman street, and is preparing to move into more extensive quarters very soon.

THE WISCONSIN PHONOGRAPH CO. was one of the first companies organized, and began business in the fall of 1888. It has always done a fairly good business, and since the beginning of the sale system has made a great deal of money. Under that system if it is continued, it has no doubt of the immediate and continued success of the enterprise. The company has sold a number of machines for business purposes, and people to whom it never could have rented a machine it finds no difficulty in inducing to purchase. It looks to building up a very large and profitable business on the new basis.

THE SPOKANE PHONOGRAPH CO. was organized in the early part of 1889, by Messrs. W. S. Norman, H. L. Cutter and C. B. Hopkins.

The officers of the company are: Rockwood Moore, president; H. L. Cutter, treasurer; H. L. Nornam, secretary, and J. W. Wilson, general manager.

Articles of incorporation were filed, the stock was being paid up and necessary paraphernalia to start operations on a

good plan were completed when the great fire of 1889 came along and consumed the city and the entire supply of phonographs and disorganized the company.

Mr. J. W. Wilson was sent to Spokane, after the fire, by the North American Phonograph Co., as expert and manager. He at once took charge for the company and has remained in this position ever since. He placed machines in the mining towns of Coeur d'Alène, Wallace and Wardner, in Idaho, and shortly thereafter in Moscow, Walla Walla, Dayton, Pomeroy, and Colfax. The care of these machines was placed in the hands of responsible agents and they at once began to make good returns.

A large expense in the operation of these machines was the freight on the storage cells between the small towns and Spokane Falls, as, when the current was used up, they had to be returned to be recharged. This expense is now avoided, as this company use exclusively the Edison-Lalande battery, and say: "We are using this battery almost entirely, as we find it more satisfactory and more economical in the end."

So far, the commercial use of the phonograph has not been developed to any very great extent, though there are machines in use for commercial purposes. The Spokane people are not backward in adopting every practical advance in science, and Mr. Wilson thinks it will not be long before the business men will recognize the necessity of the phonograph as an indispensable article for the office.

The offices of the company overlook the main street of the city of Spokane Falls, and consist of a handsome suite of rooms in the Hazel Block, with workshop and total equipment for making small machinery.

Owing to the fact that up to the time of going to press we have received no data of the following companies, we are unable to give any particulars, beyond the mere facts of organization, officers, etc., etc.

THE MISSOURI PHONOGRAPH Co. was organized March 2, 1889. The officers are: A. W. Clancey, president; J. C. Wood, general manager, and A. W. Thompson, assistant manager.

The capital stock is \$625,000. This company has leased county rights to agents, and is one of the most progressive and flourishing companies in the Federation.

Mr. A. W. Clancey, the president, was twice elected president of the National Phonograph Association, and distinguished himself by the able and efficient manner in which he conducted the proceedings.

THE OLD DOMINION PHONOGRAPH Co. was organized November 18, 1889, with full paid capital stock of \$300.00.

The officers of the company are: J. H. McGilvra, president, and Chas. F. Rowe, secretary and treasurer; with a board of directors comprising the following: J. H. McGilvra, C. F. Rowe, R. S. Boswell, T. W. Miller, B. L. Greider, Chas. A. Cheever, John L. Martin, Nevins Fishburn and Ralph D. Gunn, with headquarters at Roanoke Va.

THE EASTERN PENNSYLVANIA PHONOGRAPH Co. was organized May 14, 1889. The officers of this company are: Chas. F. Berwind, president; L. H. Williams, vice-president; James O. Clephane, secretary; E. P. Wallace, general manager, with headquarters at Philadelphia.

THE NEW JERSEY PHONOGRAPH Co. was organized February 19, 1889. The officers are: G. G. Frelinghuysen, president; N. M. Butler, vice-president; H. W. Hayes, secretary; S. S. Battin, treasurer, and Wm. L. Smith, general manager, with headquarters at Newark, N. J.

THE GEORGIA PHONOGRAPH Co. was organized March 11, 1889.

The officers of this company are: J. L. Ingliss, president; W. Stephens, vice-president; J. L. Marvin, secretary and treasurer, and F. W. Wohlgemuth, general

manager. The headquarters of this company are at Atlanta, Georgia.

THE ALABAMA PHONOGRAPH Co. was organized in February, 1889. The officers of the company are: Chas. D. Cheever, president; J. R. Roberts, vice-president and general manager, and E. E. G. Roberts, secretary and treasurer.

THE KANSAS PHONOGRAPH Co. was organized November 15, 1888. The officers are: Geo. E. Tewkesbury, president, and S. S. Ott, vice-president, with headquarters at Topeka, Kan. This company have patented a most excellent nickel-in-the-slot machine, which has lately been placed among many of the Eastern phonograph companies, who say it is giving every satisfaction.

THE MICHIGAN PHONOGRAPH Co. was organized October 10, 1888. The officers of this company are: Geo. S. Davis, president; C. W. Swift, secretary and treasurer, with headquarters at Detroit, Mich.

THE MINNESOTA PHONOGRAPH Co. was organized January 21, 1889. The officers are: C. H. Chadbourne, president; C. N. Chadbourne, secretary and treasurer, and J. H. Moore, general manager, with headquarters at Minneapolis, Minn.

THE STATE PHONOGRAPH Co., of Illinois, was organized May 20, 1890. The officers are: Granger Farwell, president; W. D. Newton, vice-president; E. L. Lobdell, treasurer; Geo. A. McClellan, secretary and general manager, with headquarters at Chicago, Ill. This company control the State of Illinois exclusive of Cook County.

THE CHICAGO CENTRAL PHONOGRAPH Co. was organized February 11, 1890. The officers of this company are: Charles L. Raymond, president; E. A. Hamill, vice-president; J. H. Dwight, secretary and treasurer; W. S. Gray, general manager, with headquarters at 141 Van Buren street, Chicago, Ill.

THE MONTANA PHONOGRAPH Co. was organized May 10, 1889. The officers

are: E. D. Edgerton, president; Donnell Davenport, vice-president; C. K. Cole, secretary and treasurer, and A. R. Gales, general manager, with headquarters at Helena, Mon.

THE COLORADO AND UTAH PHONOGRAPH Co. was organized April 4, 1889. The officers of the company are: E. W. Rollins, president; Chas. W. Hurd, vice-president; T. N. Reynolds, secretary and treasurer, and John F. Barber, assistant manager, with headquarters at Denver, Colo.

THE IOWA PHONOGRAPH Co. was organized February 1, 1889. The officers are: W. P. Manley, president; C. J. Brackenbush, vice-president; E. P. Stone, treasurer; W. Stinson, secretary, and G. A. Beach, general manager, with headquarters at Sioux City.

THE NEBRASKA PHONOGRAPH Co. was organized February 1, 1889. The officers are: E. A. Benson, president; H. E. Cary, vice-president and general manager; Geo. F. Wright, secretary; J. A. Tate, treasurer. The headquarters of this company are at Omaha, Neb. Mr. Erastus Benson, the president, whose portrait we give, is one of the live men in the business and the largest phonograph stockholder in the United States.

THE SOUTH DAKOTA PHONOGRAPH Co. was organized April 18, 1889; Lacy Bros., managers.

THE WEST COAST PHONOGRAPH Co. was organized February 4, 1889. W. B. King is president of this company, with headquarters at Portland, Ore.

THE WYOMING PHONOGRAPH Co. was organized June 27, 1889. The president is Thomas A. Kent, and the headquarters of this company are at Cheyenne, Wyoming.

THE PACIFIC PHONOGRAPH Co. was organized January 7, 1889. The officers are: Louis Glass, president and general manager; J. C. Ruddock, vice-president, and D. I. Mahony, secretary, with headquarters at San Francisco, Cal.

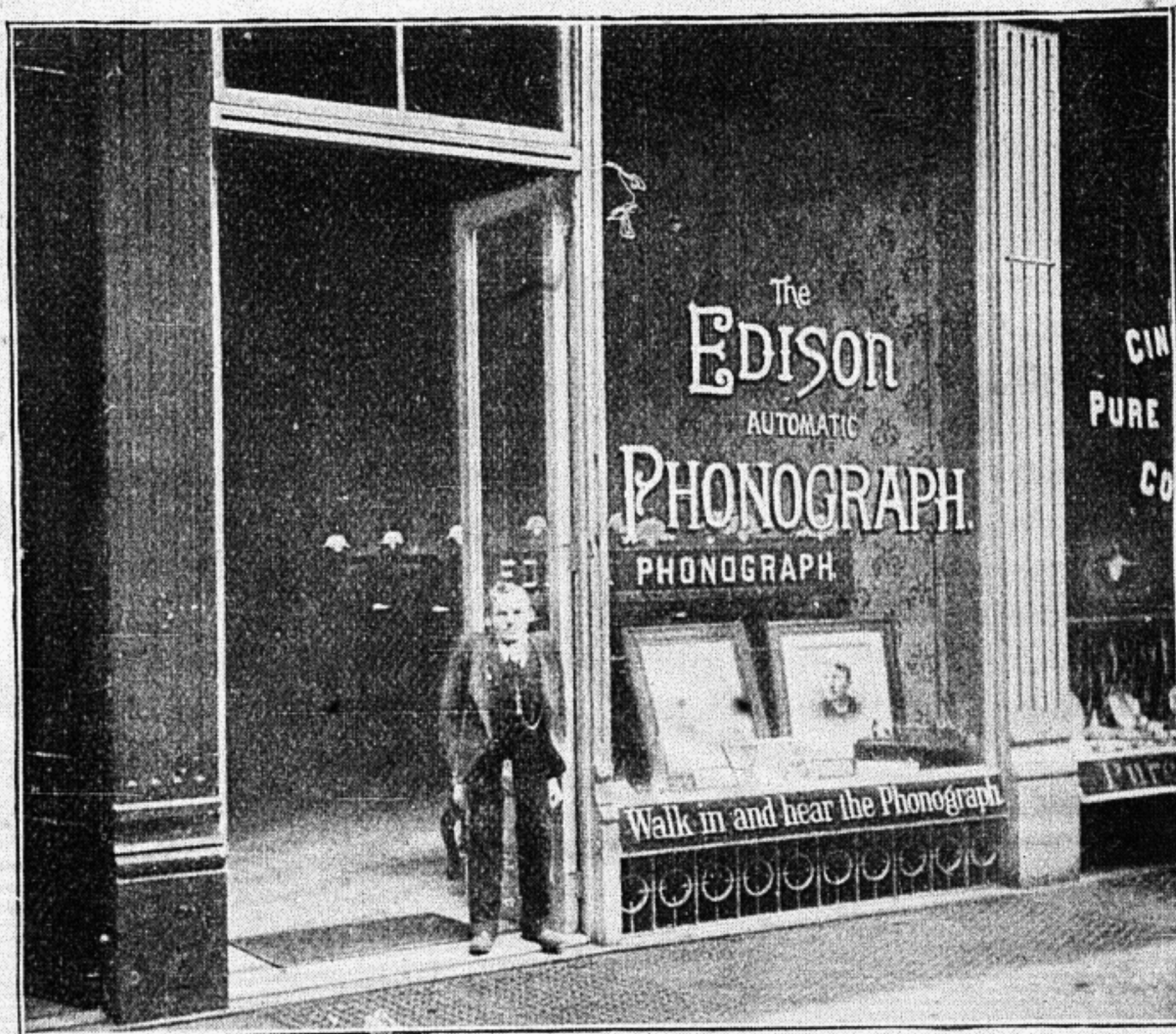
The Exhibition Parlors of the Ohio Phonograph Company.



CINCINNATI and Cleveland, O., both have inviting phonograph parlors, operated by the Ohio Phonograph Company, the Cincinnati one being located in the Emery Arcade.

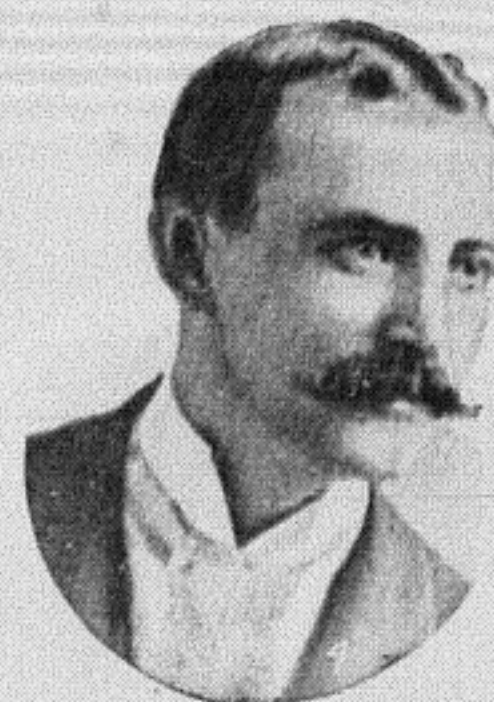
The Cleveland room was opened to the public September 15, 1890, and the one in Cincinnati in the early part

adjoining territory, as to the marvelous power of the phonograph to reproduce the human language, as well as every possible variety of musical selections. On Saturdays and holidays these exhibition parlors are crowded, and oftentimes quite an effort must be made before one can get possession of the coveted hearing-tubes when a cabinet contains a popular selection which all desire to hear. In each



of November, 1890. Both are conducted in the same manner, and they have been successful from the very start. Thousands of persons to whom the phonograph would only be a name, if known to them at all, have through these mediums become familiarly acquainted with the wonderful little instrument, and have carried the news abroad throughout a large extent of

parlor are twelve automatic cabinets, containing phonographs, arranged around the sides of the room, the announcement card of each giving the name of the particular selection which can be heard for that day. Every morning a new series of cylinders are placed upon the machines, giving an entirely new programme, except that certain popular, much-called-



1. Geo. B. Motheral.
4. James L. Andem.
7. Jesse H. Lippincott.
10. H. Lee Sellers.

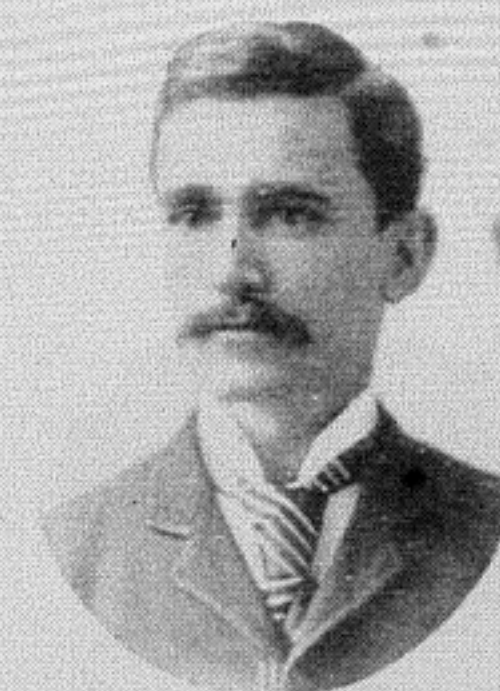
2. Thos. A. Edison.
5. C. W. Clancey.
8. R. C. Kinkead.
11. Richard Townley Haines.

3. Edward D. Easton.
6. Erastus A. Benson.
9. Thomas R. Lombard.
12. A. P. Martin.

1. Aug. N. Sampson.
4. George W. Grant.
7. J. W. Moore.
10. W. S. Norman.

2. R. F. Cromelin.
5. Cleveland Walcutt.
8. J. W. Wilson.
11. Hugh R. Conyngton.

3. C. H. Chadbourne.
6. Thos. Conyngton.
9. Henry F. Gilg.
12. H. E. Carey.



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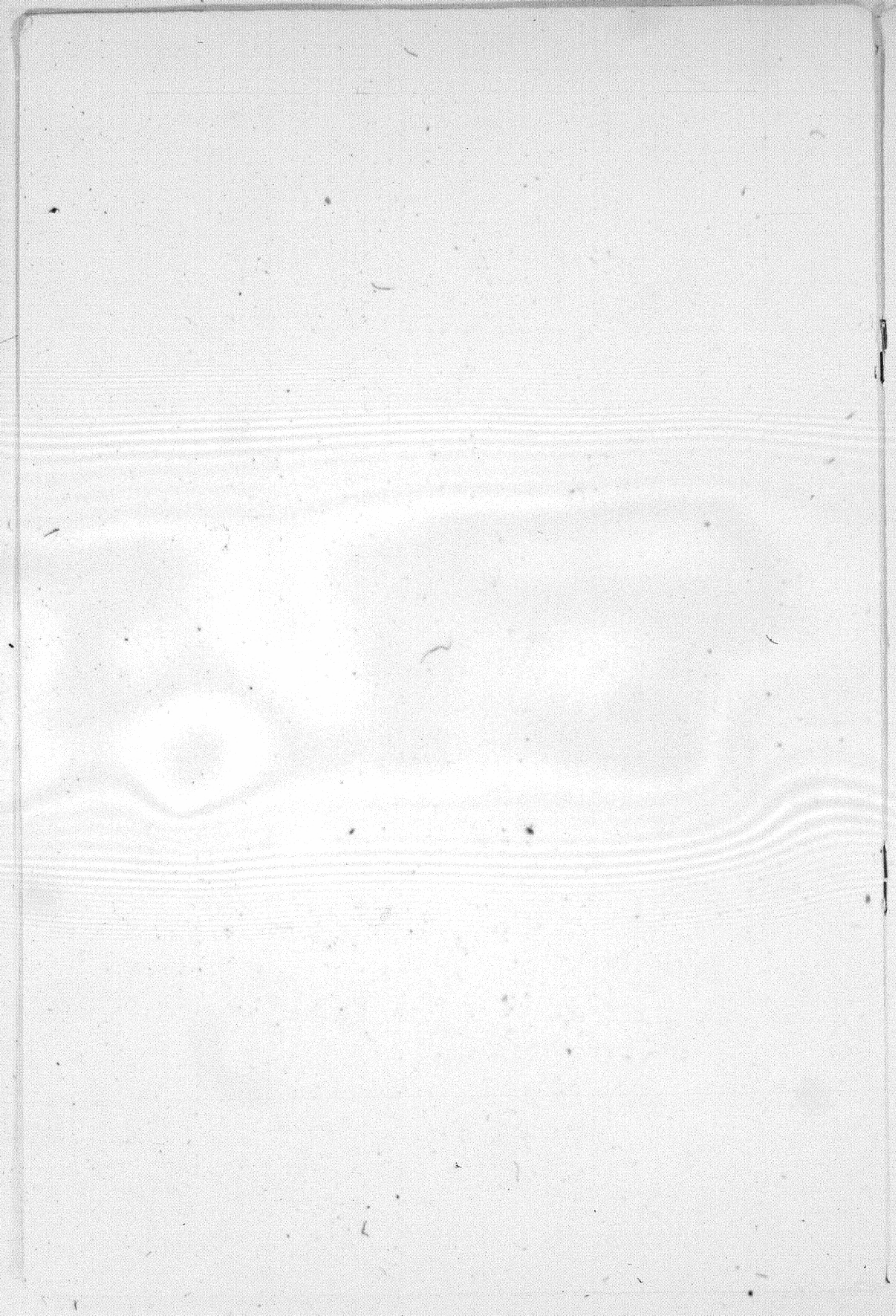
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3. C. H. Chadbourne.
6. Thos. Conyngton.
9. Henry F. Gulg.
12. H. E. Carey.



for records are kept constantly on exhibition to answer the recurring demands of the patrons of the parlors. For instance, the "Night Alarm," a band record descriptive of a fire, with calls of the firemen, ringing of the bells, the clattering of horses' hoofs and the unwinding of the hose-carriage reel, though it has been continuously exhibited since the opening of these parlors, is as popular as ever, and the receipts show that the public are not tired of it. Then, again, our friend Mr. Patrick Brady daily tells, in his famous election speech, how he "bate Murphy by a small majority," or, "what he would do

as the cylinders are kept in adjustment by the attendant, the automatic machinery is well looked after, and there is plenty of change to be had in the shape of nickels, a supply being always ready when asked for.

The Ohio Phonograph Co. has taken the ground that a magnificent piece of mechanism like the phonograph deserves a fine setting, and their handsome oak automatic cabinets are specimens of the finest wood-work that can be secured. The parlors also are brilliantly lighted, each cabinet having an incandescent electric light hanging above it, bringing out plainly the like-



if he were President of the United States," and the applause which follows is so realistic that the hearer looks about him to see whether other patrons have not dropped their hearing-tubes to join in with the multitude.

One secret of the great success of these Arcade parlors lies in the fact that persons always get a good return for their nickels,

ness of Edison and the name of the selection to be heard, while the show window, also brilliantly lighted day and evening, gives an object lesson to the passer-by where he can see a motor phonograph of 1891 and compare it with a tin-foil phonograph of 1877, the original of which the company have procured to exhibit. The large wax cylinder of the phonograph and

the small ozocerite cylinder of the Graphophone are also contrasted, while tubes, horns and blank cylinders, each properly labeled, can be seen and their uses plainly understood. A large framed programme giving the names of the twelve selections to be heard that day occupies the center space, and a life-like portrait of the great inventor, Edison, looks upon the whole scene and in turn is looked upon by the crowd that gathers about the window.

Not infrequently a family party comes in, and *paterfamilias* finds that a dollar's worth of nickels is speedily consumed and is called upon to make a second investment before he leaves. On the other hand the man of economical tendencies gratifies his love of music and his saving instincts by "going partners" with his friend and listening from one ear-tube while his friend takes the other on the same machine, pressing their unengaged ears to keep out unwelcome sounds. On the same principle a lady on one occasion having to show eleven visitors the sights of the city, dropped into one of the

arcades and the whole twelve managed to listen to short snatches of band melody as the result of depositing one nickel in the slot, each taking his or her turn at the tubes for the fraction of a moment, and after the cylinder had been concluded leaving without making further investment.

Cincinnati and Cleveland being great manufacturing and commercial centers, number of travelers and visitors come and go on business and pleasure, and to these as well as to the resident population the phonograph seems to be a continuing attraction, and under the system adopted by the Ohio company thus far there is no abatement of interest or patronage, nor is there likely to be as long as they continue to bestow upon their arcades the care and attention which they have heretofore given to them.

The business offices of this company are entirely separate from their exhibition rooms, and are located respectively at 220 Walnut street, Cincinnati, and 122 Euclid avenue, Cleveland.

ELECTRICAL PATENTS.

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|--|---|
| No. 461,887—Multiple system for telephone exchanges. Western Electric Co., Chicago, Ill. | No. 462,778—Liquid vending apparatus, Henri and B. Degremont, Marseilles, France. |
| No. 461,858—Secondary battery. WaddeH-Entz Electric Co., New York, N. Y. | No. 463,569—Combined telegraph and telephone. American Bell Telephone Co., Boston, Mass. |
| No. 422,024—Vending apparatus. Franklin J. Wood, Newark, N. J. | No. 463,247—Galvanic battery. J. W. Allison, Memphis, Tenn. |
| No. 462,234—Trigonometer. Rowland Brotherhood, London, Eng. | No. 463,248—Galvanic battery. J. W. Allison, Memphis, Tenn. |
| No. 462,371—Telethermometer. Hugh L. Callender, London, Eng. | No. 463,188—Telephony. John W. Gibboney, Lynn, Mass. |
| No. 462,253—Vending apparatus. G. A. Sawyer and J. McConnell, Washington, D. C. | No. 463,248—Telegraph sounder. James Maret, Mount Vernon, Ky. |
| No. 462,449—Secondary battery. John H. Palmer, Boston, Mass. | No. 463,544—Multiple telephone switch-board. Frank A. Pickernell, Newark, N. J. |
| No. 462,687—Phonograph. William Bruening, East Orange, N. J. | No. 463,566—Speaking-tube attachment for telephones. L. H. Snyder, Sharon, Pa. |
| No. 462,693—Secondary battery. Nathan H. Edgerton, Philadelphia, Pa. | No. 463,340—Fire-alarm telegraph repeater. George M. Stevens, Cambridge, Mass. |
| No. 462,813—Signal device for telephone pay stations. William Gray, Hartford, Conn. | No. 463,207—Telephone relay. L. O. Howell, Jr., Philadelphia, Pa. |
| No. 463,054—Vending machine. John A. Hunt, Binghamton, N. Y. | No. 463,852—Synchronous telegraph. Charles S. Bradley, Yonkers, N. Y. |
| No. 462,901—Duplex and quadruplex telegraphy. Francis W. Jones, New York, N. Y. | No. 463,945—Therapeutic electric battery. John A. Crisp, Jefferson, Ohio. |
| No. 462,720—Telegraph table. Katie V. Miller, Lewisburg, O. | No. 463,989—Phonograph. Henry T. Holtz, Washington, D. C. |
| No. 462,741—Police signal telegraph system. Charles A. Rolfe, Chicago, Ill. | No. 463,990—Starting and stopping device for phonographs. Henry T. Holtz, Washington, D. C. |

**Practical Suggestions From the Ohio
Phonograph Company.**



SIMPLICITY and economy are combined in the little brass ring or stop which is put on the back rod of the phonograph to prevent the carriage from carrying back the recording point beyond the end of the cylinder. Now who will get up a device for announcing by the ringing of a bell when the cylinder is about used up, such as is attached to the different typewriters?

We find it a very good idea in shipping batteries to out-of-town users, to put them in a crate, taking the handles off of the sides of the batteries and putting one handle on the top of the crate, so that the expressmen are not tempted to take hold of a side handle and tip the battery up and thus perhaps spill the acid which it contains. If two batteries are sent at the same time and to the same address, it is better to put them in one crate than in separate crates, as they are less likely, on account of their weight, to be thrown carelessly on their sides or handled improperly.

Corn Husks for Making Paper.

The sheath or covering which nature throws around the cob or receptacle whereon grow the kernels of the maize plant so favorably known as nutritious food for both man and beast, are said to make excellent paper. Mills are erected at various points in the West for this purpose, and the manufacture of this necessary article of commerce thus acquires a new impetus, while an almost worthless material is suddenly converted into a source of profit.

439 WEST STREET,

NEW YORK, October 22, 1891.

Editor THE PHONOGRAM:

DEAR SIR: I use three phonographs, having entered my order before the sale of the Edison patents to the North American Phonograph Co. Very naturally I feel a deep interest in the advancement of its methods, its facilities and its improvements. In my, perhaps biased, opinion, the phonograph has been sadly hampered by territorial limitations and toy-store ideas. There are countless musical machines—only one which reproduces human speech. I doubt whether the “nickel-in-the-slot” system has made one convert to practical phonographing. Under a proper system the number of machines in use could be vastly increased. One suggestion I venture to offer through your columns:

Nine out of ten of the difficulties or mishaps in connection with the phonograph are directly connected with the knife. It does not cut evenly, or it does not cut deeply enough; it drops down by accident and cuts a nasty groove in the blank; or, indirectly it is at fault, because it is not used at the right time or in the right way.

It is easy to say, “Always have clean blanks.” At first we were told to put the knife down, and talk ahead as it cut the way. Now we are advised to have all the cleaning done before talking. Half-filled, half-pared blanks are productive of most of the dissatisfaction which arises, and the use of the knife is almost the only mechanical obstacle.

Why could not the company employ a man to call regularly and deliver clean blanks to all regular customers, taking up the used ones and cleaning them at home? It would insure smooth surfaces, prompt action, general satisfaction. I will be glad to pay liberally for my supply.

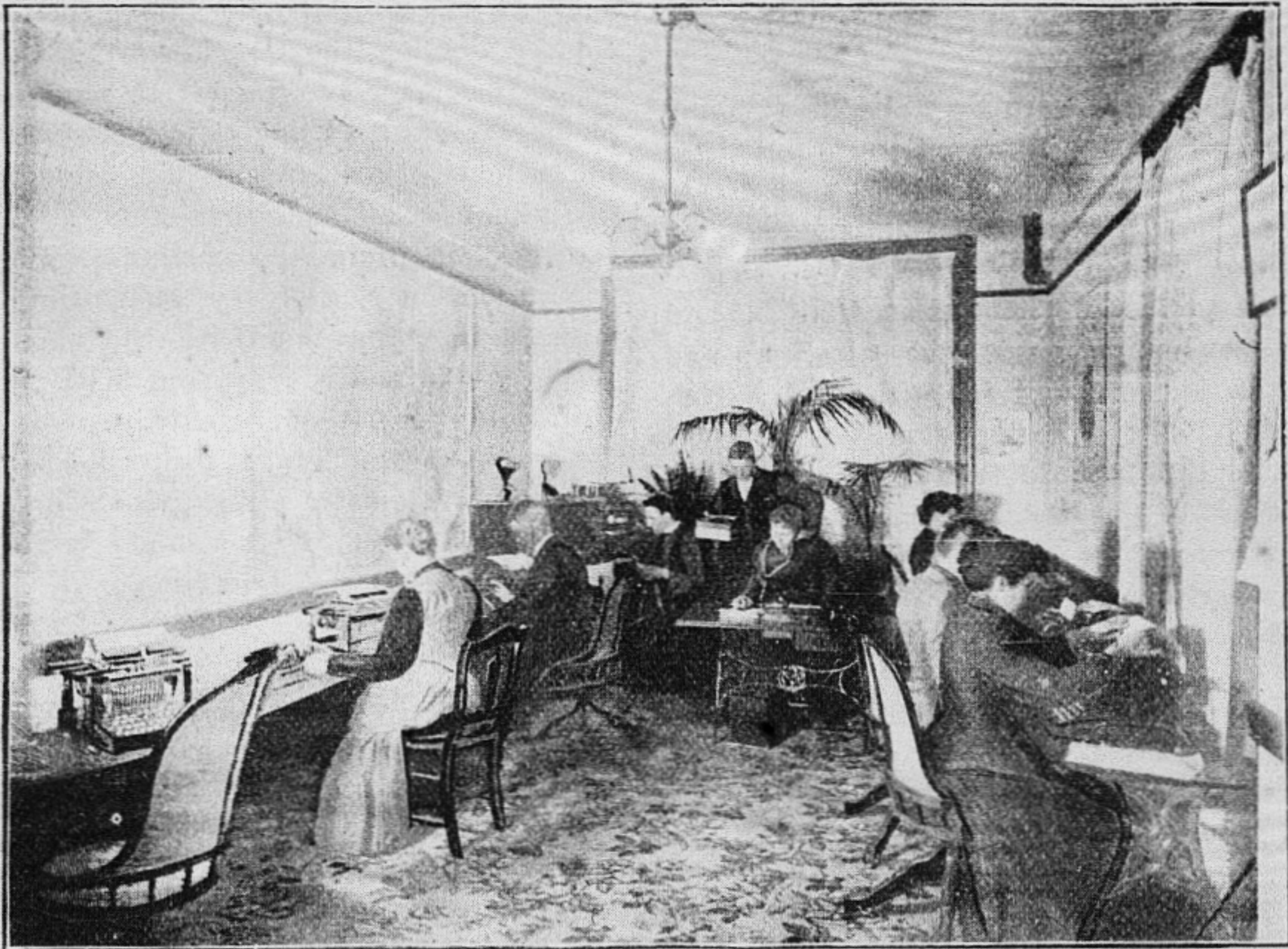
Yours truly,

ARTEMAS WARD.

Where Business Men Dictate Their Briefs and Pupils are Instructed on the Phonograph.

As properly instructed transcribers from the phonograph are so necessary in bringing about the universal use of the phonograph in the office, it gives us more than ordinary pleasure to present our readers

Here all branches of phonograph and typewriting work are done. By judicious advertising, would-be shorthand students are advised that the phonograph will enable them to accomplish quickly what by



with a photograph and brief sketch of a Washington enterprise that stands at the head of all movements in this direction.

The Phonograph and Typewriting Bureau, managed by M. R. and H. C. Snyder, is the largest institution of its kind in the Capital City, if not in the United States. Since its humble beginning, three years ago, its growth has been rapid, and its success substantial.

shorthand could be slowly, expensively and laboriously reached, if at all; and applicants are given thorough and intelligent instruction on phonograph and typewriter. A list is kept of pupils who have finished the course, and business men and others in need of phonograph and typewriter operators are supplied from this list.

Another large branch of the business is the transcribing of phonograph cylin-

ders, which are sent to the office or dictated there. The customers of the bureau are furnished phonographs for dictation, and their cylinders are taken to the bureau, transcribed, the transcript promptly delivered, and the cylinders pared and returned with the work. The bureau also furnishes phonograph and typewriter operators by the hour, day, week, or month; and moves machines to the departments, offices, private residences, etc., to suit the convenience of its customers.

The bureau occupies a suite of rooms on the second floor of Washington's grandest office building, the Washington Loan and Trust; and also two rooms in the Atlantic Building, which is on the same block. Both offices are large and commodious, and are literally filled with typewriting machines, phonographs and operators, who are constantly at work.

The mimeograph and carbon paper are used for duplicating. One of the managers is Commissioner of the United States Court of Claims; and this alone is sufficient to require the constant labor of several phonographs and typewriter operators.

The Columbia Phonograph Co., of Washington, D. C., has always found a demand for capable phonograph and typewriter operators in excess of the supply; and is now relieved to be able to call upon this bureau for its most expert pupils.

Arrangements are being perfected with members of Congress and Senators by this bureau for the coming Congressional session, and the transcribing will be done there at a low rate per folio.

The Voice of the Late William J. Florence is Always With Us, Thanks to Mr. Edison's Phonograph.

The Phonograph has fulfilled the promise of its inventor by reproducing the voices of the dead. It has been published that the late actor, W. J. Florence, whose

recent death is such an immense loss to the dramatic profession, had left but few phonographic records of himself. We hear, however, through the various phonograph agencies and from other sources, that quite a large number of these will be found in the hands of friends in several of the large cities throughout the country, as Mr. Florence very courteously yielded to the requests of his friends to talk into the phonograph so that they could retain souvenirs of his personality. Mr. Henry F. Gilg, secretary of the Western Pennsylvania Phonograph Co., recently treated some friends to a reproduction of Mr. Florence's voice from two cylinders. The first was the address to "Lucy" in the character of "Sir Lucius O'Trigger" in Sheridan's great comedy of "The Rivals," and the other was a letter from the actor to Mrs. W. J. Florence, then sojourning in Europe. Both were taken during his engagement in Pittsburgh last March, the letter being dated March 10th. The letter is private of course, but couched in the most affectionate terms. As "Sir Lucius," the great actor's voice is rich with the brogue, and is heard to advantage. Mr. Gilg says that Mr. Florence O'Neil, of Pittsburgh, an intimate friend of Mr. Florence, has a number of his phonographic records, among others, the duel scene with Jefferson as "Bob Acres."

In Boatman's bank, St. Louis, Mo., there assembled since the decease of the great actor, four of his intimate friends, who stood before a phonograph to listen again to his voice. The scene was quaint and odd, and one that the nineteenth century alone could evolve. They listened with feelings of sadness to the quaint humor with which he had amused great audiences during life. One of the records was from the "Heir at Law," where Florence appears as "Ezekiel Homespun," and all agreed that the record was marvelous, the voices of Jefferson and Florence being as distinctly recognized as if they were present in person. Florence and Jefferson repeated the experiment several times, speaking some of their most notable roles on the phonograph. Some of these cylinders are in New York, one, it is said, at the Star Theatre and one at Palmer's. The Western Pa. Phonograph Co. have several duplicates. This is believed to be the first time the cylinders have been heard since Florence died.

THE PHONOGRAPH IN CLINICS.

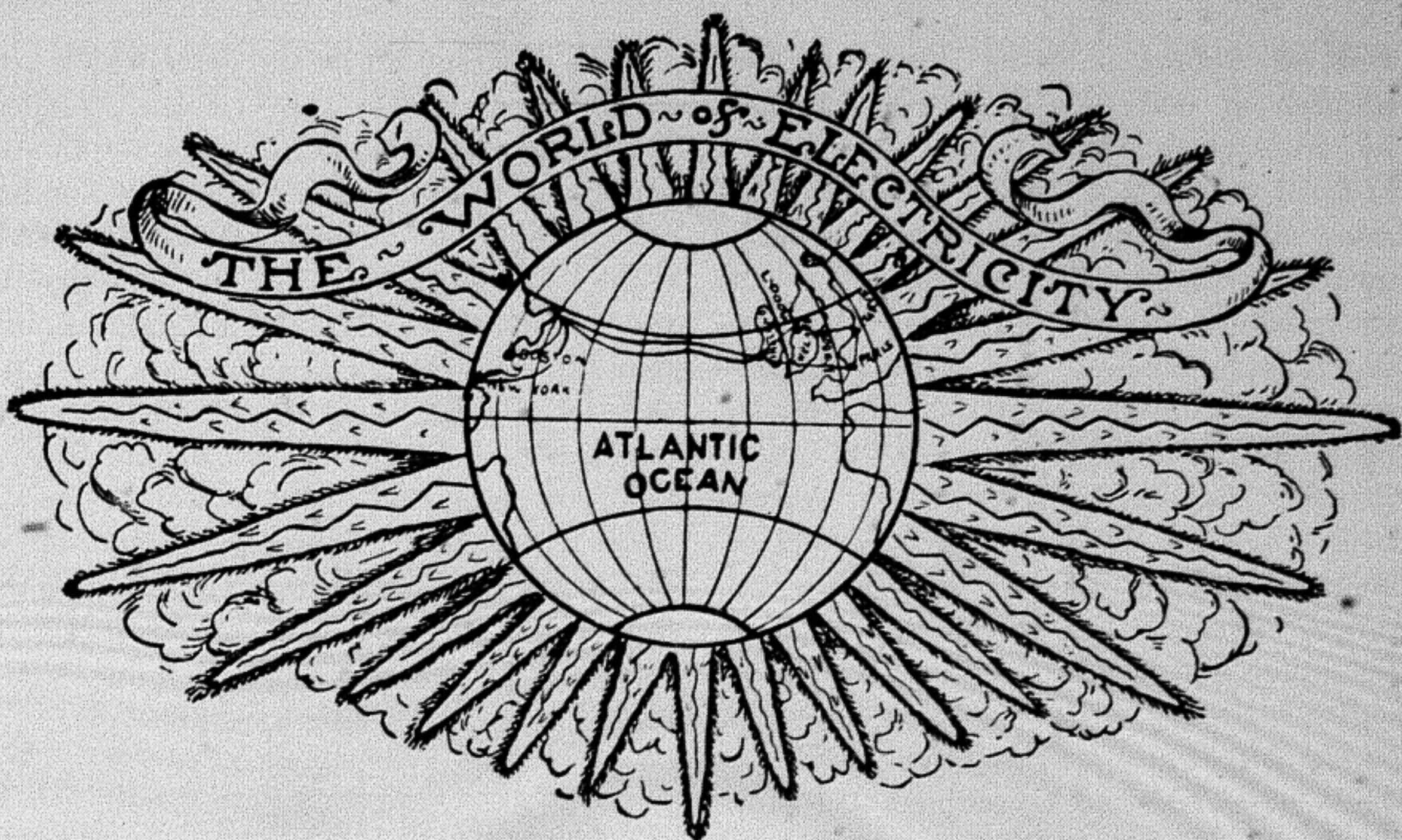
BY DR. W. T. ENGLISH.

In a lecture delivered a few days ago in the Western Pennsylvania Medical College, Pittsburgh, Pa., by Dr. W. T. English, professor of physical diagnosis, the phonograph appeared as one of the most important adjuncts to the paraphernalia of the teacher of the physical signs of disease. The record of a variety of coughs which had been faithfully preserved upon the cylinders were presented to the students, and made to exemplify their auditory characteristics to the class. In the course of the lecture the Doctor remarked :

"The phonograph is destined to become an important instrument in the clinical laboratory as a recorder not only of history and facts, but as a preserver of those auditory phenomena that belong to certain cases and maladies, and which are characteristic. The perfection of its records and realistic character of the reproduction make it superior in many, if not in most cases, to any former method. It affords opportunities for analyzing sounds, normal and abnormal, with deliberation and at our leisure. I present to you through the phonograph the characteristic dry cough of the earlier stages of bronchitis, and upon the same cylinder, in contrast, appears that moist or mucus reproduction of the later stages of the same malady. Another cylinder presents pertussis of the adult and also of a child fifteen months old. The violent expiratory efforts by which the characteristic auditory phenomena are produced, which we denominate 'cough,' is in marked contrast with that inspiratory crowing or whooping which gives to this malady the appellation 'whooping cough.' The record of cases of true croup, membranous or diphtheritic, are reproduced in such a man-

ner as to make it possible for the student of medicine to separate these dangerous diseases from spasmodic or simple cough through the medium of audition alone, and even though he has not been in the presence of either. These ailments may be studied without the unpleasant necessity of forcing the patient to cough while before the class, and saves us the disappointment of failure to secure the sounds when most desirable ; for it is well known to every clinician that when we most wish a patient to cough or exhibit characteristic signs, the very knowledge of such desire postpones their production and causes the spasm to subside. Especially is this the case with children. Severe maladies, which, from their very nature, could not be presented, may thus, by the means of the phonograph, appeal to your hearing, and diseases may continue their clinical representation long after the subject has passed away. The laryngeal rales are reproduced, though the patient is not in the land of the living. The characteristic "death rattle," which intimates to the experienced ear the approach of dissolution, still teaches us how to distinguish this sign of impending death. In the near future I expect to be able to present records by which you may be enabled to separate the various forms of rales, and also those chest noises which will suffice to familiarize you with heart abnormalities as well as respiratory changes, that may be studied deliberately and at your leisure."

The students were permitted to listen in groups to the records and their characteristics were pointed out by an assistant, as the lecture proceeded, without interruption. The class consisted of about two hundred.



THE STORAGE BATTERY QUESTION—HOW TO CHARGE FOR THE PHONOGRAPH.

BY THE

ILLINOIS ANGLO-AMERICAN STORAGE BATTERY CO.



REGARDING the most economical plan of charging and handling batteries, we find that in the majority of cases where batteries have given out, it was due to an insufficient amount of solution in the cells.

It is as essential to keep the plates of a storage battery covered with the electrolyte as it is to keep up the water in a boiler; so before charging always fill up the cells to within one-half inch of the top with clean, soft water, unless the cell has been leaking, in which case use a solution made of sulphuric acid and water prepared as follows: Mix one part of chemically pure sulphuric acid with five parts of clean water in a stone or glass jar and let it stand about four hours to cool; the solution will then be of a specific gravity of 1.189 or

twenty-three Baumé. Never pour the undiluted acid into the cell, as this will certainly ruin the elements. The life of a cell greatly depends upon the handling which it receives, rough or careless handling injuring the elements far more than years of active service. The results of careful handling are clearly shown in the case of the Chicago Central Phonograph Co., who have been using our cells for the past year and a half, and up to the present writing we have not been obliged to renew an element or a plate in any of their cells, and on recently making an examination of one of the first cells sold to them, we found it to be in perfect condition.

In order to charge from an arc-circuit, connect battery in circuit same as an arc lamp, the positive terminal to positive wire, using Cleveland, Thomson Houston or similar dead cut out. Always switch battery on circuit after starting dynamo

and off before shutting down. Any number of cells can be charged at once by connecting them in series, negative to positive and connecting end terminals same as one cell. To charge from an incandescent circuit it is necessary to use resistance in series with the battery and an ordinary break-circuit switch; connect positive terminal of battery to positive main and negative to negative main through rheostat and switch. Always switch battery on after starting and off before shutting down. To obtain the proper charging current, connect sufficient resistance in series with your cells so as to register twenty amperes; the cells could be charged at a lower rate but it would require more time to accomplish the same results. The resistance may consist of incandescent lamps in multiple, or coils of wire, and varies according to the number of cells to be charged at one time. An ordinary rheostat can be made with very little trouble or expense, but for the benefit of the users of our phonograph cell, who do not care to make their own, we manufacture a cheap yet neat and effective rheostat which may be used for charging from one to twenty cells at a time.

These are shipped F. O. B. cars at Chicago for \$10 each.

To find the resistance necessary in charging from an incandescent circuit, take voltage of system, subtract two and one-half volts for each cell charged at one time, divide the remainder by twenty (the proper charging current), and the result will be the resistance in ohms. Example: On a 110-volt circuit we desire to charge two cells at a time, $110 \text{ minus } 2 \times 2\frac{1}{2}$, divided by 20, equals $5\frac{1}{4}$ ohms. The cells should receive from 400 to 500 ampere hour's charge; divide 400 or 500 by rate of charge, gives time necessary to charge cell. It is bad policy to spark the cells, or to hold a flame over the vent while charg-

ing, as this may ignite the gases which are given off and cause the cell to explode. We would also caution users of our phonograph cell to avoid lifting it by one handle or tipping it over on its side, as the acid will spill out through the vent and injure the wooden case. We also strongly recommend purchasers to have their cells shipped by freight at all times and never by express, as we find that the cells are generally carefully handled by freight men, while it seems that express handlers take a malicious delight in throwing around and breaking a storage cell whenever opportunity offers, at least that has been our experience in shipping cells by express.

Latest Type of the Reynier Elastic Accumulator.

Nearly a year ago we gave to the public a description and plate representing the

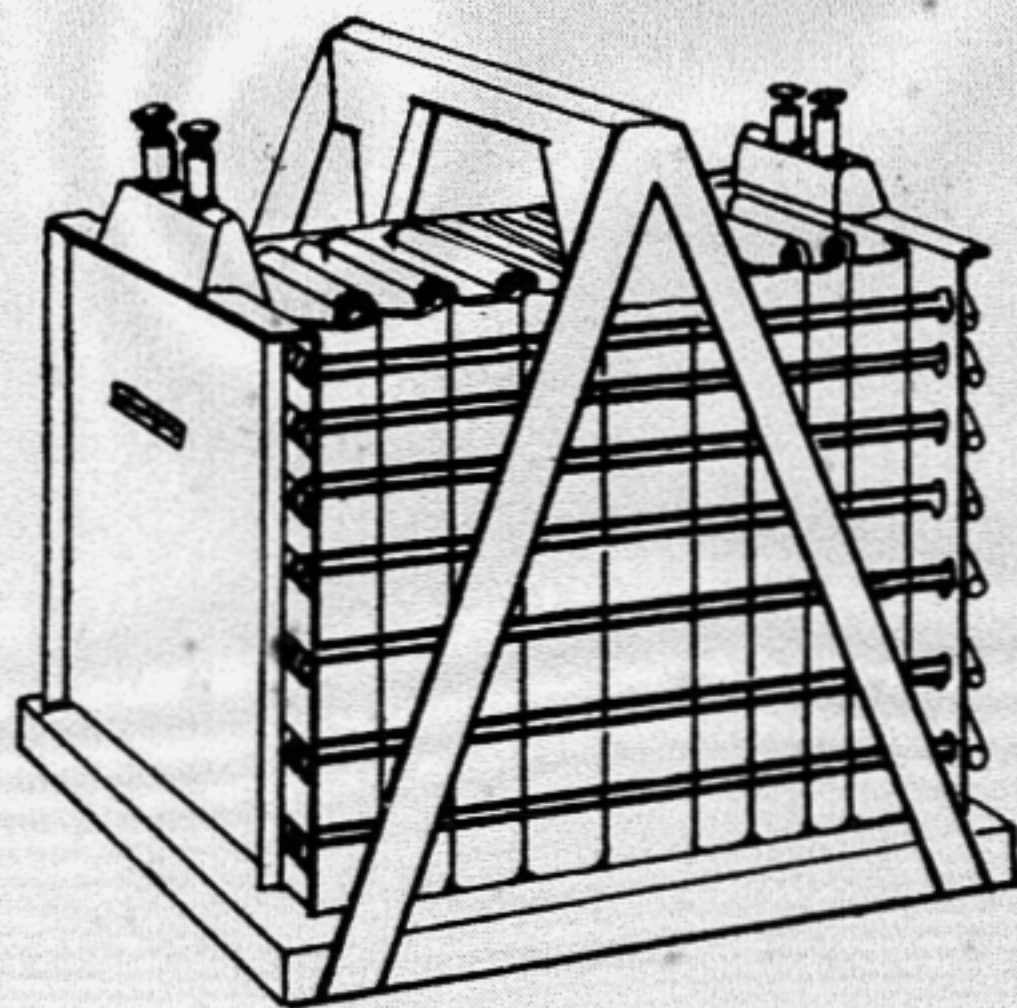


Fig. 1.

Reynier Elastic Accumulator. A correspondence with Madame Reynier enables us to present details which other journals do not possess, and we herein emphasize the fact that this battery offers advantages not afforded by any other accumulator.

The latest type of the instrument shows cells connected in series and placed be-

tween two rigid end pieces, drawn tightly together by strong springs. This arrangement of the springs gives to the active material an artificial elasticity by which the battery attains greater activity (that is, a high rate of discharge) and very great specific power.

Fig. 1 shows the half battery without its case or covering. This consists of eight accumulators placed in pockets or flexible wallets. These couples are set in flat, one against the other, and compressed between two rigid plates drawn towards each other by springs of caoutchouc. A bridge of hard wood, protected by a water-proof preparation, sustains the whole apparatus, which can, according to requirement, be laid down or suspended. Upon the sheets or plates of active matter is placed a liquid thickened with jelly or starch by chemical processes, or by the addition of pulverized or spongy matters, such as glass, silicate, asbestos—in powder or in fiber—wood sawdust, cellulose, etc. By suitably selecting the absorbents and agglomerating them more or less, they may be made to take the place of the insulating porous partitions above mentioned.

The introduction of rubber springs, which continuously compress the various parts of the machine, is a guarantee against the shaking and shocks which it will not fail to receive. Fig. 2 shows a half battery inclosed in its case. These machines are so packed that train agents can ship them without accident. The batteries are forwarded empty. The in-

ventor has published explicit directions for putting the accumulator in working order; and these will be furnished to anyone desiring them. This machine is an improvement on both the Faure and the Bandsept accumulators.

Electricity Applied to the Microscope.

Munich now furnishes scientific apparatus of a superior quality, and at the Poeller Physical and Optical Institute, in that city, a microscope is just completed for the Exposition, costing \$8,750, and possessing a magnifying power of 11,000 diameters. Electricity furnishes and regulates the source of light, which placed in the focus of a parabolic aluminum reflector reaches an intensity of 11,000 candle power. The important novel feature is the cooling machine, which is indispensable on account of the extreme heat, generated by the

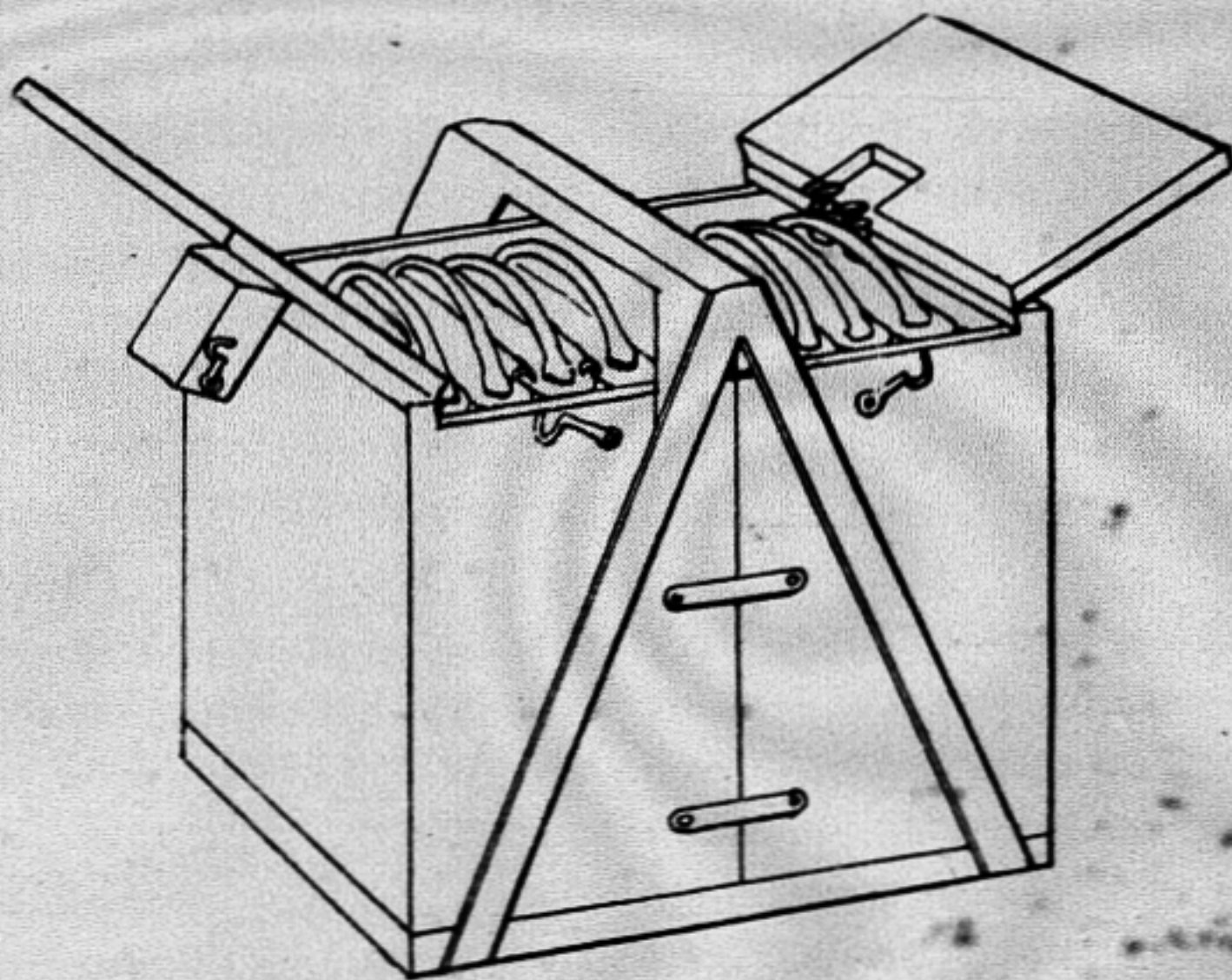


Fig. 2.

illuminating arrangement. A machine regulated by a Helmholtz electric centrifugal regulator provides the several microscopic and polariscopic systems of the apparatus with a fine spray of fluid carbonic acid, which immediately after its release from the copper vessel, in which it is held under a pressure of twenty-three atmospheres, becomes converted into gaseous matter, so intensely cold that only .00007 gram of carbonic acid per second is required to give the result. The magnifying power of the apparatus with ordinary objectives, is, as has been stated, about 11,000 diameters, but with oil immersion it can be increased to 16,000.

Beautiful Experiments With High Tension Electric Currents.

The brothers Siemens, of London, in making their interesting experiments at the Naval Exhibition with high tension currents, displayed to the admiring spectators phenomena so wonderful and unusual as almost to baffle description.

The knowledge of the effects produced by high tension currents is very limited, but the results obtained in the essays conducted on the occasion above referred to, are so surprising that this field of science cannot fail to be eagerly and thoroughly explored.

In former experiments made by Messrs. Siemens and Halske at the Frankfort Exhibition, electric currents of 20,000 volts were dealt with, but with the first-named electricians a higher flight was reached, since they employed an apparatus capable of yielding a current of two amperes at the enormous pressure of 45,000 volts; that is to say, capable of creating a force of 120 horse-power.

Two electrodes, separated by a large sheet of glass three millimetres thick, were placed upon a table, one electrode of seven millimetres (about three inches) in diameter being connected with the terminal of a transformer, and a second electrode about three centimetres from the glass, terminating in a point. From this point, as soon as the current was turned on to the primary coil of the transformer, there was seen to issue a purple glimmering light which reached out to the glass. As the electro motive force increased this light changed into luminous tongues of increasingly intense brilliancy, which flung themselves against the glass as if trying to force their way through it; finally, when the tension attained 45,000 volts, the spectacle suddenly changed: a light no longer purple, but of an extraordinary whiteness and power, which the eyes

could not endure, enveloped the glass in its whole extent.

The pointed electrode was then replaced by a metal disk of three centimetres in diameter, separated by three small pieces of vulcanite from the surface of the glass, and at once a purple light like that of a Bunsen burner rushed out to unite the electrode with the glass, while as the tension of the current increased, jets of flame like the petals of the chrysanthemum, writhed and twisted around it. At last, when the highest tension was produced, the glass was shattered into a thousand pieces.

In these experiments the enormous electro motive force was obtained by two transformations. A current of 80 volts had been at first transformed into a current of 2,000 volts by a special Siemens transformer, and the additional current was afterwards raised to 45,000 volts by a transformer of the ordinary type.

Another Triumph Scored.

It has been ascertained that the phonograph enables the deaf to hear. This is the immediate answer to a query contained in the head lines of an article on a preceding page. Since it was written we have received the following from an eminent authority.

New fields for the marvelous Edison phonograph are opening daily. The latest appears to be the treatment of deafness caused by catarrh. Prof. H. F. Garey, of the department of eye and ear diseases in the Southern Homeopathic Hospital, Baltimore, Maryland, has been engaged for the past three months experimenting with the phonograph in this direction. The large clinic in the dispensary of the college is being utilized with results which promise to revolutionize the treatment of deafness. Dr. Garey says he already feels warranted in stating that those who are deaf and harrassed by noises in the head (Tinnibus Aurium) have much to encourage them to hope that the phonograph will prove the greatest benefactor to the human race produced in this age of progress.



THE EVOLUTION OF THE TYPEWRITER.

Like all mechanical appliances the typewriter has been subjected to a succession of improving processes, and, like the clock and watch, or the grub and the butterfly, has been evolved from a crude, imperfect recorder into a smooth working, reliable, swift-running apparatus for registering ideas. Its merits as contained in the New Densmore machine, 202 Broadway, New York, are the following: perfect and permanent alignment; ease with which writing is brought into sight; carriages changed instantly without tools; convenient working and arrangement of ribbons; accurate manifolding; durable connecting rods; tension space connected with universal type bar immediately in the back and adjusted with thumb screw, which is simple and convenient; all operations performed perfectly, easily and noiselessly.

The Densmore family are the pioneers in the typewriting field and stood by the enterprise for fifteen years, while the success of the typewriter hung in the balance. They viewed with interest the efforts of inventors who were introducing improved instruments on different principles from those embodied in the earlier machine, and now, after many trained minds have given years of thought and toil to solve

the problems involved, they believe that the "Densmore" has overcome the chief defects.

The crowded offices on Broadway testify to the popularity of this new acquisition in the typewriter field.

The Telegraph and Typewriter.

The typewriter and telegraph have been used for some time simultaneously. The tri-trip of the typewriter sounds so much like the dot-dash of the telegraph instrument that it seems curious that no confusion is occasioned.

There is, however, no real similarity between these sounds so far as the trained ear is concerned. The difficulty is in spontaneously striking the right typewriter letter, in turning the lines correctly and in not making a slip, so that it will be impossible for you to keep up with the telegraph key. Of course one can write faster on the typewriter than on the Morse system; but the turning of the lines, the spacing and the hyphenating at the ending of the lines when you neglect to carry over the whole word, brings the speed very closely to the Morse key. The telegraph

operator has to make sometimes five distinct dots or dashes for one letter, while the typewriter key makes a letter at one stroke. The Morse dots are made by very slight motion, however, while the typewriter stop has to have a certain firmness equivalent in expended force to several of the telegraph key motions.

This combination of typewriter and telegraph key has been in operation for some time on "news" work, but is only now coming into experimental use on general work. They are trying receiving and copying with the typewriter. The innovation advances slowly because there are difficulties to overcome. For instance, in private telegrams there must not be a hair's breadth of variation in any particular.

A Mechanical Device for Supplying Ink.

Typewriters have, until recently, been supplied with a ribbon mechanism for inking; now, however, a firm in Chicago have adopted a new mechanical device for supplying ink, directly from a bottle to the types of writing machines. The device consists of a rubber-faced ink disk, working in combination with an inking head. The inking head is stationary, and the connection is kept up between it and the ink in the bottle by means of a threaded tube. The ink feeds through this tube and is absorbed into the inking head as needed. The connection between the inking head and the type is maintained by means of the ink disk, which is made yielding to allow the free passage of the type to and from the printing point. The ink disk takes up the ink from the inking head and distributes it to the type, providing an even and constant supply. The principle is new and not easy to explain, and is said to be a marvel of simplicity withal, and does its work in a very effective and pleasing manner.

Patents for Writing Machines.

There have been granted in the United States from 1843 up to the present time 850 patents for writing machines. Of these, 750 were issued since 1870. The earliest machine was invented in 1843 to take the place of the pen or pencil for those who were blind or otherwise incapacitated from writing.

The name "typewriter" was first given to a writing machine in 1867. This machine, invented by three men of Milwaukee, Wisconsin, embodied the fundamental principles, although it was a crude affair compared with those of to-day.

Personal.

Mr. Motheral, President of the Western Pennsylvania Phonograph Co., gave us a call recently. This gentleman says business is brisk in his territory.

* * *

We also had the pleasure of a visit from Mr. William E. Young, one of the members of the enterprising firm of Holland Bros. & Young, Canada agents for the Edison Phonograph. These gentlemen have the field all to themselves and a very large one at that, and from the success they have already made, we feel sure that our Canadian brethren are enthusiastic over "the machine that talks."

* * *

Mr. J. Y. Atlee, the famous whistler for the Columbia Phonograph Co., dropped in our office for a chat recently, and while here was prevailed upon to render a few of his most popular airs. Mr. Atlee's whistling is marvelous. He included in the programme "Bischoff's Bobolink," the "Mocking Bird" and the "Anvil Chorus."

CORRESPONDENCE.

Foreign Notes.

HULL, ENGLAND, October 31, 1891.

Editor PHONOGRAM :

DEAR SIR:—Please send me THE PHONOGRAM for one year, commencing with (back number) No. 5, for which I inclose \$1 note.

My place of business is a resort for scientific and literary gentlemen, who have been highly pleased with the copies you were kind enough to send me.

I have for a number of years taken the greatest interest in all inventions which have for their object the recording and reproduction of sound. Do you think it would be possible for me to hire an automatic phonograph, graphophone or gramophone, similar to the one shown on page 42 of No. 2?

If you issue an index to Vol. I., please send me a copy, as I intend to have the numbers bound.

When Mr. Edison's "Kintograph" comes on the market, I intend (if the price is not prohibitive) to purchase one, for exhibition purposes. I shall esteem it a great favor if you will keep me posted as to the development of this wonderful invention. Wishing your journal the success it deserves,

I am yours faithfully,

JOHN NOTTINGHAM.

New York Notes.

NEW YORK, December 2, 1891.

Editor of THE PHONOGRAM :

DEAR SIR :—I understand that you have received a communication stating that the music repeated by the phonograph has been transmitted from New York City to Saratoga, N. Y., by telephone, a distance of 175 miles by wire.

To increase this statement somewhat I would say that phonograph music has frequently been transmitted by telephone from the long distance telephone office in this city to Buffalo, N. Y., a distance of 438 miles. This distance could readily be exceeded were the telephone lines extended further westward.

Yours very truly,

RICHARD TOWNLEY HAINES.

Western Pennsylvania Notes.

PITTSBURGH, PA., November 2, 1891.

Perhaps the method we use of paring cylinders might interest some of your readers.

When we wish to pare a large lot we fasten the body of a phonograph to a table and connect it to a one-twelfth H.-P. motor, similar to those used on the phonograph-graphophone some time since. One battery will shave a cylinder in thirty-eight seconds, two batteries in twenty-seven seconds. We did not use three batteries, and do not know whether the time could be reduced to infinity or not. We thought twenty-seven seconds quite fast enough. Have you ever heard of any better arrangement?

Yours truly,

WESTERN PENNSYLVANIA PHONOGRAPH CO.,

HENRY F. GILG, Secretary.

Kansas Notes.

LYONS, KANSAS, October 31, 1891.

I am a phonograph exhibitor, and perhaps no one ever became more expert in so short a time. I had only listened to three pieces from the phonograph before I began running one on exhibition, which occurred under the genial management of Mr. Wilson, of the Spokane Phonograph Co. I first charged twenty-five cents to give two pieces, then I came down to one piece for ten cents or three for twenty-five cents, which are the prevailing prices in the Spokane Co. territory. I exhibited the first phonograph for the Spokane Co., consequently I had a bonanza. I exhibited in Banner Plateau for eight hours, population not over one hundred; receipts were \$45; and at Murray Plateau, population not over two hundred, exhibited one day; receipts, \$61.

I have exhibited in but two towns since commencing under the Kansas Phonograph Co., first at McPherson, population about four hundred; the receipts for the first evening, at five cents, to hear "Down Went McGinty," \$23.75; next day, \$40; next, \$30; next, \$36. Then I moved to Lyons; receipts for first day were \$15.25; next, \$42.85; next, \$20.65; next, \$20.10; next, \$27.80. I am beginning to think Thomas A. Edison has given me a fortune through the invention of his phonograph. I have to make a great many explanations concerning the phonograph and some of the most comical conceivable.

Respectfully, H. BIECHLING.

Illinois Notes.

CHICAGO, November 15, 1891.

Your favor of 13th, asking for information in using storage batteries, received.

The result of our experience is, that storage

batteries furnish much less energy on an average than is claimed for them by manufacturers. Notwithstanding this fact, we have not been able to find anything as yet that can be generally substituted for them.

We hope for improvements in the manner of furnishing power for the phonograph, whether an improved storage battery or something else is immaterial, but something better than we have at present is needed.

Regarding shipment of batteries, we much prefer to ship by freight, as they are handled more carefully than when forwarded by express; but when time is an object we are, of course, obliged to ship by express.

GEO. A. MCCLELLAN,

Manager State Phonograph Co., of Illinois.

Texas Notes.

We have had a most successful phonograph exhibit recently at the Dallas Fair, and we found the most successful manner of conducting the exhibit at an occasion like that, to be, to group the machines and have one or two assistants when the crowd was greatest to watch machines, make change, and otherwise accommodate the visitors. We find the number of persons to whom the phonograph is not known, or but little known, is comparatively small; and also we find that those who have heard the machine, or are more or less familiar with it, are more anxious to hear the machine at a place like this than those to whom it is entirely new.

TEXAS PHONOGRAPH CO.

Louisiana Notes.

In regard to our methods of taking musical records we do not think there is anything especially original about them. We rely for success on having the best professional music, on having our machines and apparatus in perfect order, and in using a great deal of skill and taste in all the details; and then, afterwards to go through the cylinders, and throw out, relentlessly, all that are in the slightest degree defective, faint, or not up to the mark.

The automatic attachment we use is the "Hartford" Model. It is a high-priced attachment, but thoroughly well made, and an ornamental appendage to the machine. We think the best way of exhibiting the phonograph for profit is to do as the Ohio Phonograph Company has done, when circumstances will permit. Have a large parlor fitted up,

with fifteen or twenty nickel-in-the-slot machines, and have a polite and gentlemanly attendant to assist, and make change for its patrons.

We have also found it very profitable to exhibit the nickel-in-the slot in the ordinary way, by putting it in the best places of general resort, by having but few machines out, by supplying them with the best music, and keeping them always in perfect order.

H. R. CONYNGTON,

Sec'y-Treas. Louisiana Phonograph Co.

Queries.

NEW YORK, December 1, 1891.

What territory are phonographs for sale in, and will they allow them to be taken out of designated territory? W. J. PORTER, JR.

[We refer you to advertisement in this issue which designates the territory in which the phonographs are for sale. They are restricted for use only in the territories in which they are sold.]

ALBANY, N. Y., December 15, 1891.

Can a party buy the right for private use of the phonograph for a portion of the year, living in the same jurisdiction? J. M.

[With consent of company from whom party leases.]

DEAR SIR:—Please send me copies of THE PHONOGRAM. Does the governor or the phonograph govern by cutting off and on the current? If not, how?

Very truly yours,

J. MONT ROSS.

[ANS.—As the speed increases the point of contact is made smaller until the circuit is entirely broken. The speed is regulated by a shunt governor.]

COMPTON, QUE., CANADA, December 1, 1891.

Can you send information of the best storage batteries and treatment of same?

I have succeeded very well in sending phonograms through the telephone, but how can I record on the phonograph messages from the telephone? REV. J. E. C.

[You can take a record on the phonograph from a long-distance telephone by putting the speaking tube in close contact with the receiving telephone.]

PHONO CHAT.

The Ohio Phonograph Co. have a very simple but yet complete device for preventing the slipping of cylinders upon the mandrel, to be used not only on slot machines but on commercial machines when dictating letters upon them, and will be glad to answer any inquiries from local companies or others in regard to them. Their address is 220 Walnut street, Cincinnati, Ohio.

Batterson & Co., commission merchants, Buffalo, N. Y., have the following notice printed on their letterheads: "This message was dictated through Edison's Phonograph in our own voice, and therefore about equal to speaking with you face to face."

Dr. Lansdowne, of the staff of physicians at the World's Dispensary Medical Association, has been the most successful in getting a large number of words on a cylinder among the users of the machine at that institution. On one cylinder he has dictated 1,480 words, having the machine go at a slow speed. For one year he has kept track of the letters dictated by him, and finds he has dictated 8,979 letters in that length of time.

Mr. John Dietzer, manager of the Dunston lithographing firm, of Buffalo, N. Y., when asked if he wished to renew his leases of his phonographs for another year, writes: "I would not be without them for five times their cost."

On the automatic phonographs at the permanent Musee Theatre in Buffalo, incandescent lamps have been placed on the cabinets, lighting up the machine and calling a person's attention thereto. The receipts of nickels, by so doing, have been nearly doubled.

We hear from the New England section that business continues very good; sales of phonographs have proved a great success, and the extra quality of the records taken by the New England Co. have been fully appreciated by the public, and a large business is now being done in these magnificent records. The New England Co. have lately entered into a contract with Mr. Charles L. Marshall, of Newark, N. J., to superintend the automatic portion of their business for the ensuing year.

This company has also issued a very neat catalogue of their musical selections (bands), of which they make a specialty, and it is cer-

tainly as handsome and artistic as any catalogue we have seen.

We have received the new musical catalogue of the Columbia Phonograph Co., and note they have added some excellent selections to their already extensive list of band and other records. Besides the United States Marine Band music, they keep an assortment of vocal, clarinet, cornet and piano music, and artistic whistling by the celebrated J. Y. Atlee. They also change their list each week, thereby having constantly in stock a large and varied assortment.

When one needs recreation and change of thought, which is as necessary as change of air, both for the citizens of Cincinnati and sojourners in her midst, these needs can be filled by entering the rooms of the Ohio Phonograph Co. and listening to the "Pat Brady records" repeated on their automatic phonographs. Those who live outside of Cincinnati, whether far or near, can have these records transmitted to them by sending orders to the Ohio company. Nothing can be more amusing, droll and at the same time surprising, than these original and odd conceits, which are by means of the phonograph *transfixed*, so as to afford to fun-lovers everywhere an unending source of diversion.

What is done in Canada is always well done. No invidious comparisons are intended, but when we see an association conducting its operations so as to develop trade and afford pleasure to the public by the wisdom and good taste of its methods, it affords us pleasure to record it. Horton, McFarlane & Co., of Toronto (No. 12 King street), supply music from phonographs to public and private entertainments, and maintain parlors, one exclusively for ladies, in which music, recitations and various diversions are furnished to spectators.

Even their advertising pamphlets are possessed of interest, telling us of the phonograph soirées in London society, where guests contribute a song or recitation after listening to the regular programme. And their quotations from Shakespeare, Tennyson, and even Edward Bellamy, are apt and felicitous.

A woman to play on four hundred pianos at once! This is to be accomplished by means of electricity at the Columbian Exhibition in Chicago in 1893.

A successful exhibition of the Phonograph is being conducted under the auspices of the New York Phonograph Company at the new Columbia Building, No. 29 Broadway, New York.

THE PITTSBURG PRESS.

Daily, 1 Cent. Sunday, 2 Cents.

THE BEST NEWSPAPER

Published in Western Pennsylvania.

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FOR 50 CTS.—Information from Washington City on any subject—Proposals, Contracts, Awards, Patents, Trade-Marks, Copyrights, Claims, Pensions, Decisions, Treaties, Appointments, New Bills or Matters Legislative, Political, Industrial, Financial, Scientific, Agricultural, Literary, Educational, etc. Endorsed by Congressmen, who yearly become less able to meet constituents' requests for information. No delays. Absolute reliability. Try us once.

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WANTED.

Phonograph expert. One who has been trained in Edison's factory preferred. State age, with what company last employed, what experience in the business and salary expected. Address "PHONOGRAPH," care V. H. McRAE, Room 87, Pulitzer Building, New York.

THE STENOGRAPHER

The leading shorthand magazine. Francis H. Hemperley, author of "Analogical Syllabic Shorthand," Editor; Bates Torrey, author of "Practical Typewriting," Associate Editor. Specimen copy free. THE STENOGRAPHER PUBLISHING CO., 140 So. 4th St., Philadelphia, Pa.

HUMOROUS TALKING RECORDS

FOR THE PHONOGRAPH.

Owing to the constantly increasing demand on the part of the public who patronize Automatic Slot Phonographs for humorous talking records, THE OHIO PHONOGRAPH COMPANY have made arrangements to keep constantly on hand a full stock of the celebrated

PAT BRADY RECORDS,

and will hereafter be able to supply them to local Phonograph companies and others promptly on the receipt of orders.

These records are very carefully taken, are clear and loud, so that every word can be distinctly understood by the hearer, and never fail to largely increase the revenues of the slot machines upon which they are placed.

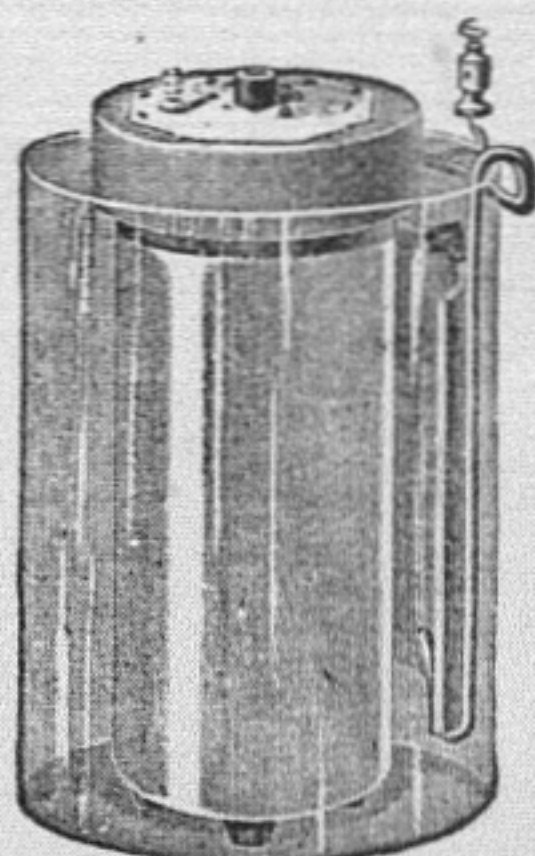
The following is a synopsis of the subjects.

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| <p>No. 1. Pat Brady as a Police Justice.—Having been elected to office, he administers the law in a very novel manner, and renders some very original decisions.</p> <p>No. 2. Pat Brady on a Spree.—An important event having taken place in his household, he celebrates it in a noisy way with his friends. (Chorus.)</p> <p>No. 3. Pat Brady in the Patrol Wagon.—Having come home at an unseasonable hour, he becomes demonstrative, quarrels with his landlord, and the patrol wagon takes the party away. (Chorus.)</p> <p>No. 4. Pat Brady Before the Election.—He addresses his followers, and makes them extravagant promises if they will elect him to office. (Chorus.)</p> <p>No. 5. Pat Brady After the Election.—He explains how it was that he beat Murphy "by a small majority." (Chorus.)</p> <p>No. 6. Pat Brady and the Doctor.—Brady sends for a physician, asks some strange questions, and receives some good advice.</p> | <p>No. 7. Pat Brady in the Police Court.—He meets a friend on the street, an altercation takes place, and he explains the causes to the judge.</p> <p>No. 8. Pat Brady and the World's Fair.—He gives his opinion as to what countries should send representatives to Chicago and who should stay away. (Chorus.)</p> <p>No. 9. Pat Brady as President.—He states what his policy would be towards the Indians, and other reforms he would make if he were elected President. (Chorus.)</p> <p>No. 10. Paddy's Wedding.—Pat Brady tells a funny Irish story about McGuffin, and concludes with an Irish song.</p> <p>No. 11. Pat Brady and His Wife in Court.—He seeks a divorce from his wife, and tells the story of his domestic troubles.</p> <p>No. 12. St. Patrick's Day Speech.—He addresses his countrymen on St. Patrick's Day, gives them some original English history, and makes some predictions. (Chorus.)</p> |
|--|--|

ADDRESS: **THE OHIO PHONOGRAPH COMPANY,**

No. 220 Walnut Street, Cincinnati, O.

THE ONLY COMPANY MAKING A SPECIALTY OF "TALKING" RECORDS.



Taylor's Primary Battery for Motors, Electric Lighting,

180 Volts. ELECTRIC WELDING AND HOUSEHOLD USE. 22.5 Amperes.

SEND FOR CIRCULAR.

New No. 1 cell, 40 amperes, 200 ampere hours	\$5.00
No. 2 " 8x6, 22 1/2 amperes, 80 ampere hours	2.50
No. 3 " 5 1/2x4, 8 amperes, 30 ampere hours	1.00

ELECTRIC WELDING.—TWO No. 2 CELLS WILL MELT No. 21 IRON WIRE, and will furnish current sufficient to weld small pieces of metal.

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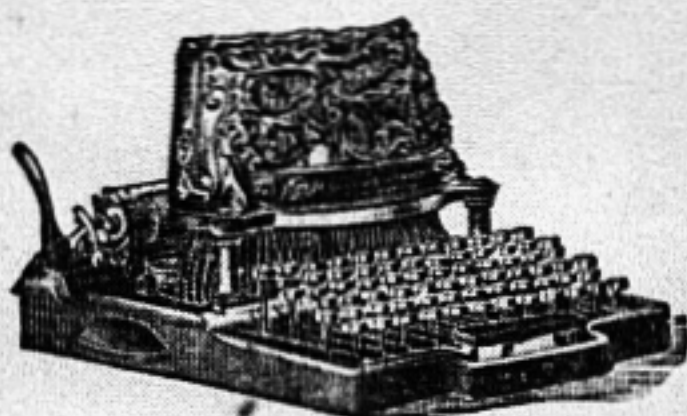
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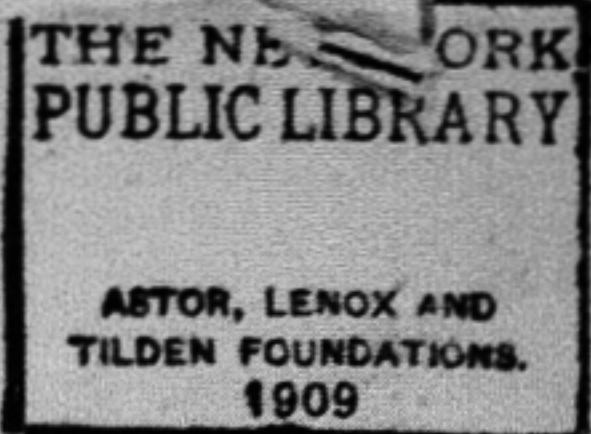
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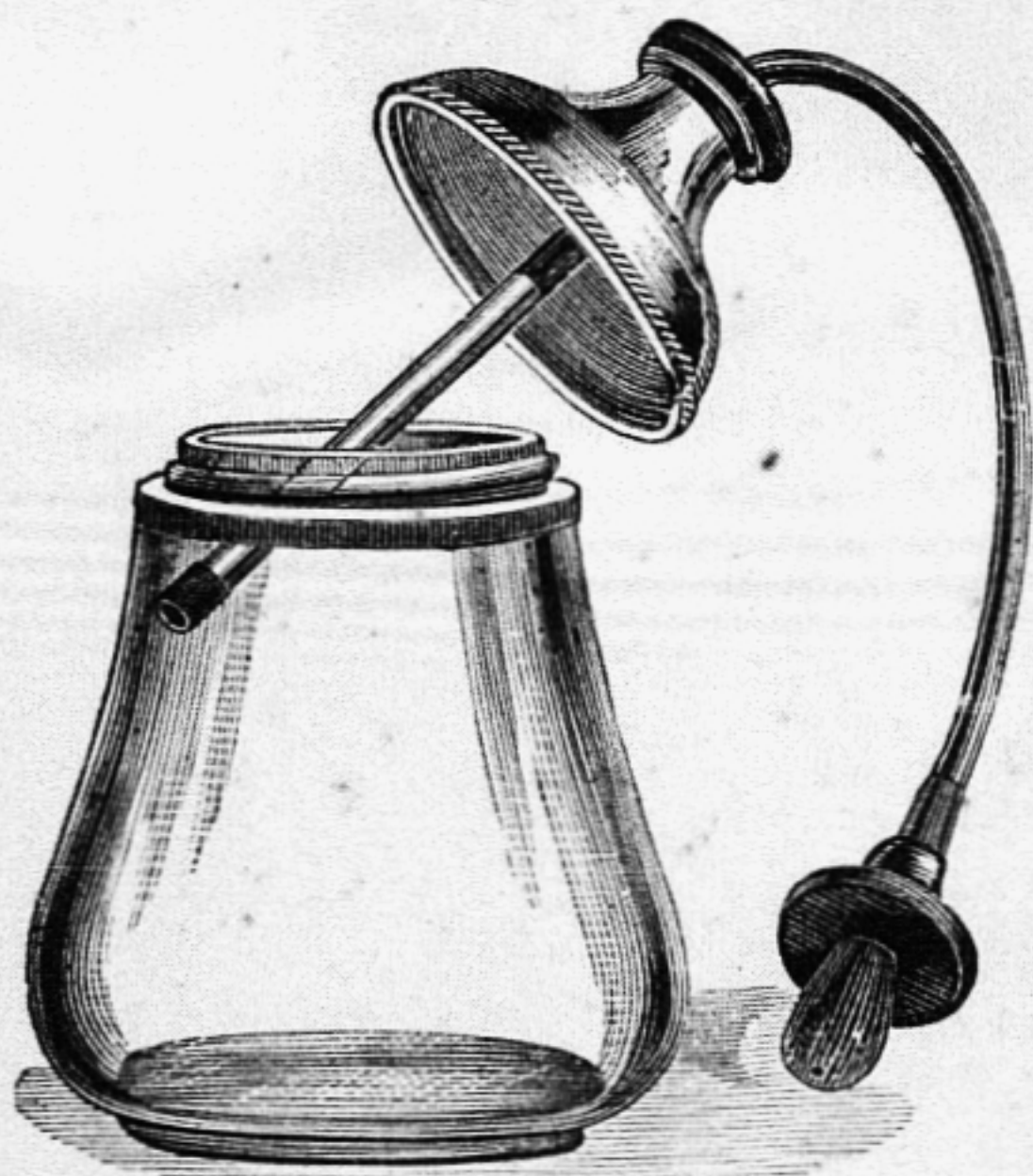
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